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America's Ties to Troubled Liberia
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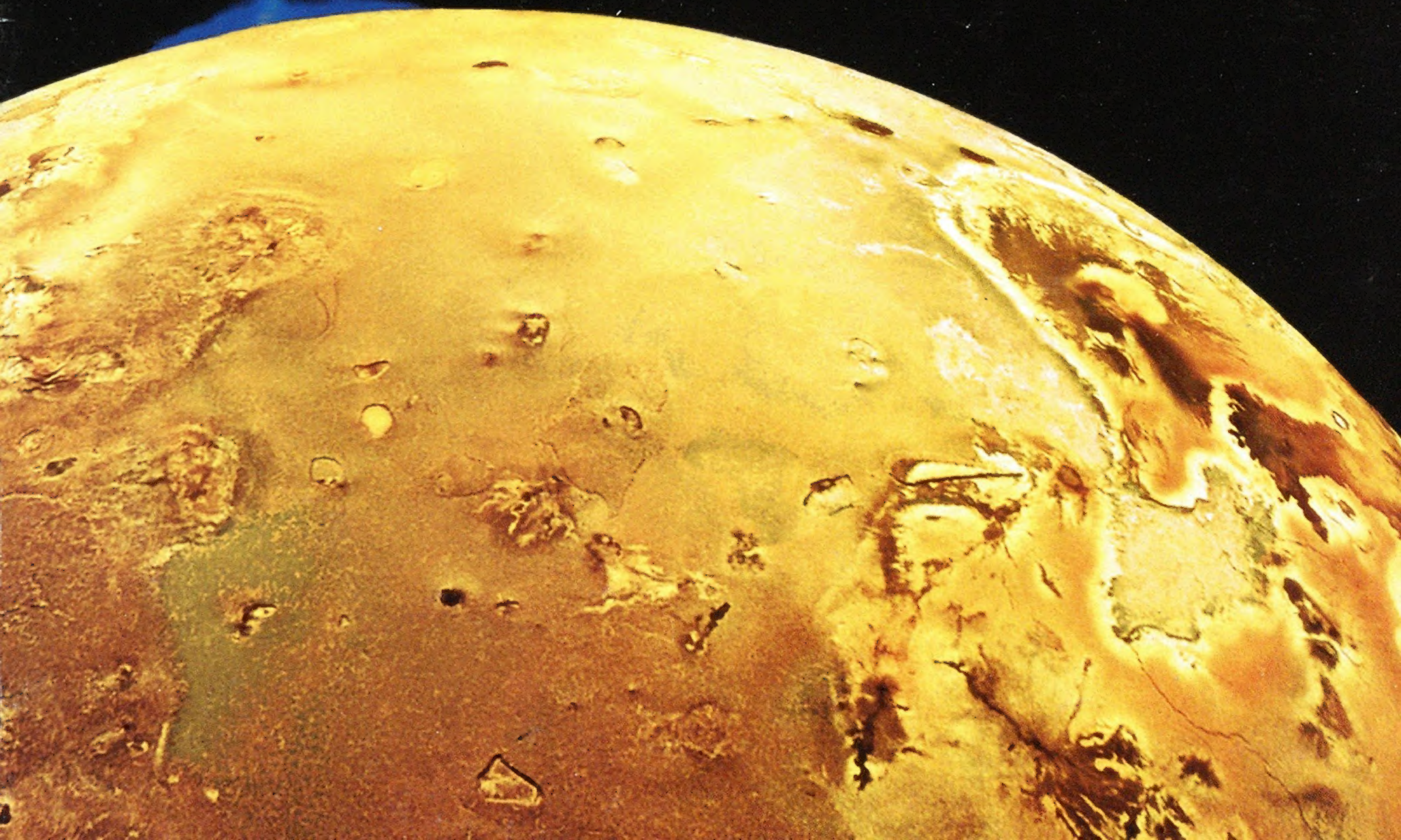
Saving the Atchafalaya Swamp
Sylvia Plath's Life and Death
Mexico's Dream Weavers



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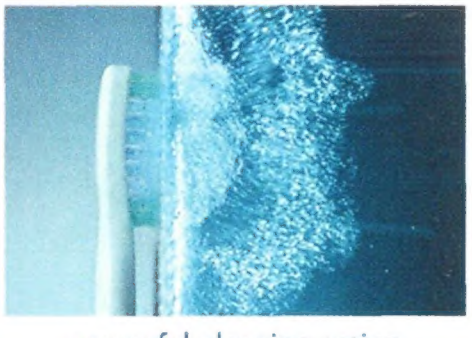

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FEATURES

"A YOUNG AMERICAN woman in red shoes and wearing a lot of lipstick approached and introduced herself as Sylvia Plath."
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ON THE COVER An 86-mile-high volcanic plume (the blue flare) spews from Io, the third largest moon of Jupiter. *PHOTOGRAPH COURTESY OF THE UNIVERSITY OF ARIZONA / LPL; MICHAEL BENSON.*

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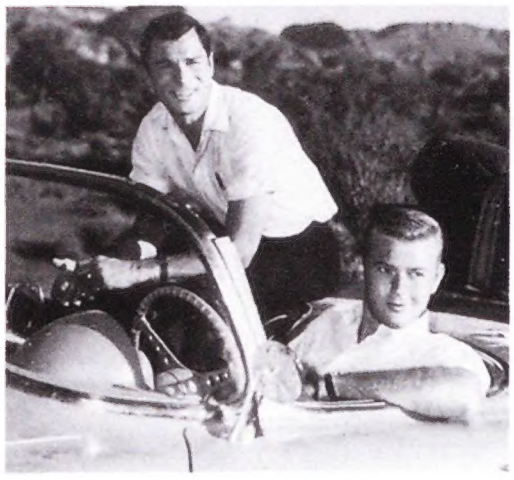

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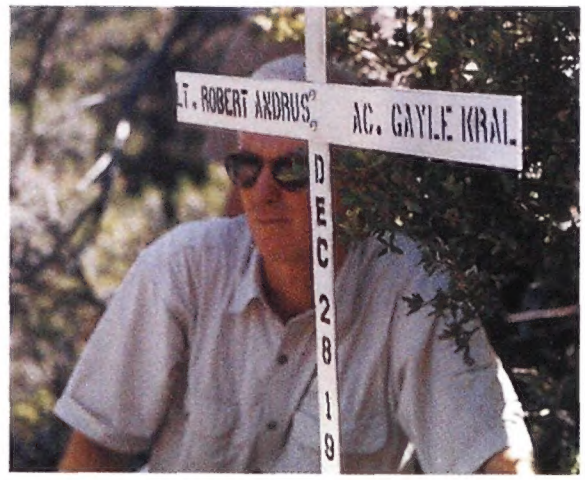

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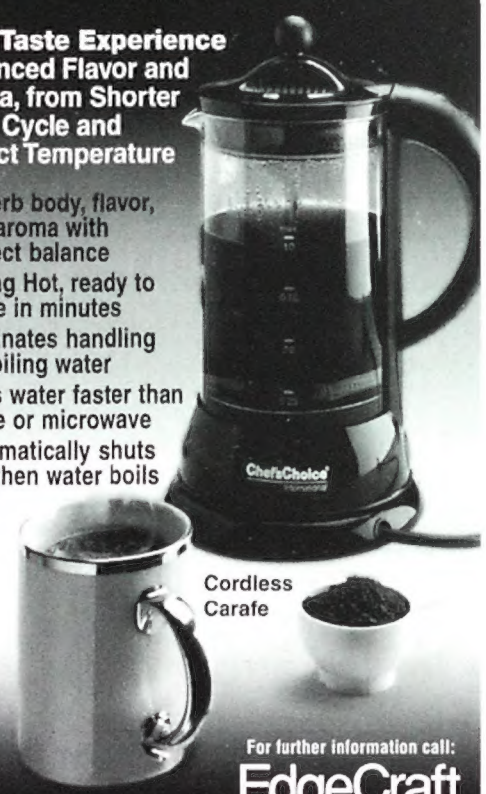

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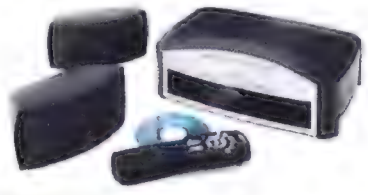

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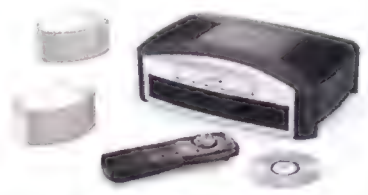

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Flashbacks

Reconsidering JFK and Sylvia Plath

BY CAREY WINFREY

ONE DAY when Dana Calvo was 6, she heard something on TV about "Camelot" and a man called President Kennedy. When she asked about those things, her mother recalled the afternoon the president was shot, 40 years ago this month. Then 22, her mother had been shopping at Klein's Department Store in Lower Manhattan. She took a break to get a hot dog and an Orange Crush at Nedick's food stand. The woman serving her was listening to the radio. Suddenly, she burst into tears and said, "Oh my God, the president's been shot."

Calvo: Continually surprised.

"For me," says Calvo, "the Orange Crush made the story."

Calvo, now 33, harvested lots of telling details interviewing people for our story ("The President's Been Shot," p. 80) about remembrances of JFK's assassination. "I was continually surprised at people's emphasis on the personal minutiae from that flash point memory," she says. "Who told them the news, and what they were doing at the moment they learned it, seemed to humanize the event." Former Senator Alan K. Simpson recalled just the way the sky looked when a friend told him the news as he walked toward a Rotary Club meeting in Cody, Wyoming. Novelist Reynolds Price remembered a radio commentator signing off to the funeral march from Beethoven's *Third Symphony* just as another commentator did after the death of FDR. When Calvo finished her reporting, she again asked her mother about the day Kennedy was shot. "She told me the same story I remembered from the mid-1970s—with the cold Orange Crush as vivid as ever."

ROB HOWE recalls that when he was an English major at the University of California at Los Angeles in the 1970s, Sylvia Plath "seemed to come up about every other quarter," he says. "I can't imagine how many times I read *The Bell Jar* and the *Ariel* poems—I still have my copies, heavily annotated with insights that escape me now." But because of the "new criticism" then in vogue in English departments across the country, which dictated that scholars focus only on the words on the page and ignore the author's biography, Howe, 51, had only scant knowledge of the woman herself or of her dashing poet husband Ted Hughes.

Researching ("Seeing Sylvia Plath," p. 54) opened Howe's eyes. One of his first interviews was with Lucas Myers, who went to Cambridge University with Hughes. Myers told Howe about the night in 1956 when a young American woman in red shoes approached him at a party and seemed to flirt with him. It was Plath, and that night she appeared anything but a troubled soul. "In fact," says Howe, "as I read passages from her journals and letters, I felt I was in the presence of a lusty wench who might have written bodice-rippers." In the end, Howe says he came to feel that Plath was far more than a pioneer championing the literary voice of the contemporary woman: "She was a vulnerable, tender and at times daring individual whose personal tale stands for me as one of the great tragic love stories of the latter half of the 20th century." ○

Howe: Eye-opening research.

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THE ARCHITECTS who designed the National Museum of Natural History early in the 20th century placed three spacious exhibition wings to the east, west and north of a soaring entry rotunda. But the grandeur of their design was compromised within a few years of the museum's 1910 opening. In the west wing, for instance, brick walls were built between the marble columns to provide office space, and eventually the wing was divided into four exhibition areas. Now the partitions have been cleared away (as they will be cleared from the north and east wings of the museum in years to come), and the wing, restored from floor to 54-foot-high skylight, has been reborn as the Behring Hall of Mammals, a spectacular new exhibition space in which the technology of display is as state of the art as the science.

The hall, which opens November 15, is a monument to the philanthropic spirit of California businessman Kenneth E. Behring, for whose family it has been named. Ken's gift of $20 million to the museum in 1997 launched the physical restoration of the building. In addition—in *extraordinary* addition, I should say—Ken has committed $80 million to the revitalization of the National Museum of American History. His overall commitment of $100 million is the largest private-sector benefaction to the Smithsonian since James Smithson bequeathed the fortune that established it.

The Hall of Mammals is a monument as well to our Smithsonian scientists, and in particular to Robert Hoffmann, a world authority on mammals and a former director of the museum. Only 20 percent of the museum's interior is exhibition space. The rest is home to the various great collections and to those who tend and study them. The behind-the-scenes labor of the staff establishes the intellectual and scientific foundations on which we present the collections to the world, in exhibitions for which the Smithsonian depends largely on private benefactors. (Federal funds—taxpayers' dollars—make up approximately 75 percent of the Smithsonian's annual budget, but because they do not support many activities that are fundamental to the expectations the public has of the Smithsonian, we must seek substantial additional funds each year from the private sector.) The Behring Hall of Mammals is a model instance of collaboration between the wisdom of our staff and the generosity of a donor.

The hall combines natural history with state-of-the-art technology.

Who qualifies for the hall? What makes a mammal a mammal, a credentialed member of the extended family that comprises more than 5,000 species (and readers of this magazine)? All those species share the following characteristics: hair, mother's milk and three inner-ear bones. Of course, what's so striking about mammals is not their similarities but their differences. How did they come to be so diverse? The epic story deserves an epic telling, and thanks to a team that includes co-curators Bob Hoffmann and distinguished paleobiologist Kay Behrensmeyer, the new exhibition provides just that. Using fossils of ancient mammals and 274 meticulously prepared specimens, it draws visitors into environments re-created from four continents—where, for example, audiences will join animals gathered around an African water hole as a rainstorm breaks, or crouch with lions watching from grasslands nearby. And anyone who's ever aspired to view the world from inside a termite mound will finally get his wish.

An especially notable inhabitant of the new hall is *Morganucodon oehleri*—"Morgie," in curatorial shorthand—a contemporary of the first dinosaurs, approximately 210 million years ago. Reconstructed from fossil evidence, Morgie is among the earliest species with truly mammalian characteristics. Given that this rodentlike creature was likely the ancestral source of mammalian genes, be grateful for all the subsequent mysterious, disconcerting turns evolution took as mammals contended with conditions on earth over a couple of hundred million years. The family lost Morgie, but it did, in time, gain Mozart.

Lawrence M. Small
SECRETARY OF THE SMITHSONIAN INSTITUTION

D. E. PETERSON, SMITHSONIAN MUSEUM OF NATURAL HISTORY

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LETTERS

Readers respond to the September issue:

RARE FARE

DICK WATERMAN is one of those rare individuals who's in the music business for the love of heartfelt, authentic music and the people who make it ("Focus on the Blues"). Without the inspiration and assistance of such people, many musicians would face lives of obscurity and indifference.

JOHN YORK
CLAREMONT, CALIFORNIA

THE ARTICLE places Waterman's home in Oxford, Mississippi, which is described as being in the Delta. Oxford, to its good fortune, is not in the flat and featureless expanse known as the Delta, but snuggles in the green and rolling hill country many miles away.

JEREMY ESKRIDGE
TUPELO, MISSISSIPPI

We hasten to point out that Delta residents are no less appalled by our mistake. For his part, Waterman says he takes his cue from a Muddy Waters song lyric, "My heart is in the Delta." —Ed.

SEEYA DIA

AS I READ "Beacon of Light," about the Dia:Beacon museum in Beacon, New York, I wondered if the author and I had visited the same place. In Michael Heizer's work she saw a negative sculpture; I saw holes in the floor. In Donald Judd's installation she saw sculpture stripped to bare essentials; I saw a bunch of boxes. In Darboven's construction she saw an effect like walking through a history book; I saw picture postcards and letters of no special note. I left the museum thinking about what could have been done with that wonderful space and wasn't. Yes, art is in the eye of the beholder.

EDWARD J. ROSS
YORKTOWN HEIGHTS, NEW YORK

YOUR ARTICLE EXPRESSED the enormous beauty and fun of the museum.

But it missed one piece of art that still terrifies me: Robert Smithson's *Map of Glass (Atlantis)*, which is made of broken glass covering the floor. My fear is that a runaway 3-year-old will trip onto this upsettingly beautiful piece.

BARBARA IWLER
DOBBS FERRY, NEW YORK

Dia:Beacon tells us the artwork has been exhibited at numerous venues since 1969 without incident, and a gallery attendant is stationed nearby just in case. —Ed.

'WINKS JINKS

"A WALK ACROSS ENGLAND" asserts that serious adult competition in tiddlywinks was "dreamed up in the mid-1950s by a group of students at Cambridge who wanted to hack into some of the respect given athletes." But heated tiddlywinks bouts preceded their dream by decades. I am 90 years old, and my brothers and I played the game in the 1920s with the same equipment and in the same manner described by author Michael Parfit.

ROBERT BEERY
NORTH MANCHESTER, INDIANA

FIN DIN

THE BOTTLE-NOSE dolphin's self-awareness and intelligence might indeed qualify the species as unsuitable for military use on ethical grounds ("Uncle Sam's Dolphins"). The Navy claims it doesn't send dolphins on "dangerous" missions. But Navy divers no doubt find deployment to a combat zone dangerous. At least they know mines might explode; the dolphins don't.

NAOMI A. ROSE
THE HUMANE SOCIETY OF THE UNITED STATES
WASHINGTON, D.C.

THOUGH THE NAVY'S Marine Mammal Program started breeding dolphins in 1999, as your article points out, it should also be noted that the Navy discontinued collecting dolphins from the wild after 1989.

TOM LAPUZZA
PUBLIC AFFAIRS OFFICER
SPACE AND NAVAL WARFARE SYSTEMS CENTER
SAN DIEGO, CALIFORNIA

SNEAKER BEAKER

"EUREKA!," about the role of serendipity in inventions, cited only male inventors. But consider chemist Patsy Sherman, who was inducted into the National Inventors Hall of Fame in 2001 and whose story appears in my *From Indian Corn to Outer Space: Women Invent in America.* While trying to improve gasoline hoses at 3M, she spilled a chemical polymer on her sneaker. She noticed that the area covered by the chemical remained cleaner than the rest of her shoe, even after many washings. Thus she came upon the idea for Scotchguard, the fabric protector.

FRED M. B. AMRAM
MINNEAPOLIS, MINNESOTA

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THIS MONTH IN HISTORY

NOVEMBER ANNIVERSARIES—MOMENTOUS OR MERELY MEMORABLE

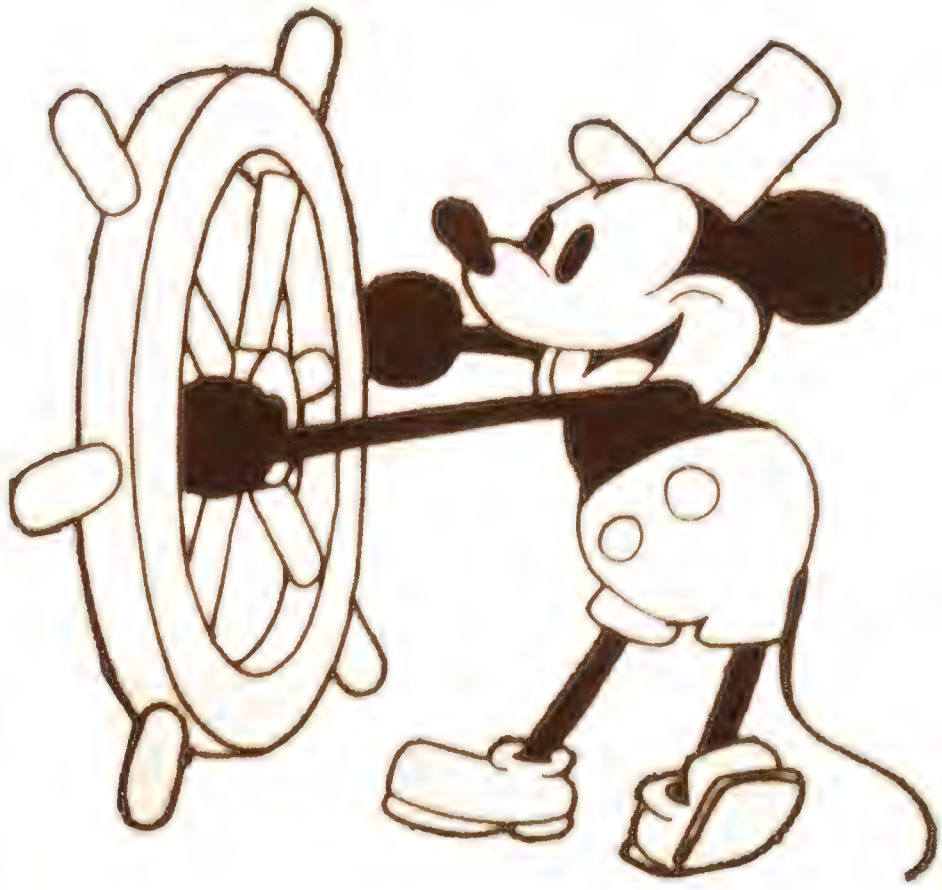
50 YEARS AGO: SKYROCKET IN FLIGHT
Flying a Douglas D-558-2 Skyrocket, test pilot A. Scott Crossfield becomes the first person to zoom past Mach 2—twice the speed of sound—on November 20, 1953. The former Navy fighter pilot takes the experimental rocket-propelled plane to 1,291 mph in a dive from 72,000 feet over California's Edwards Air Force Base. In 1960, Crossfield will be the first to fly at Mach 3 and live.

100 YEARS AGO: THE ONE TENOR
Singing "La Donna E Mobile," Italian tenor Enrico Caruso, 30, makes his American debut at New York's Metropolitan Opera as the Duke in Verdi's *Rigoletto*. A critic hails the range and "large power" of the artist's voice in his November 23, 1903, performance. Caruso opens the Met's next 17 seasons. He dies in 1921.

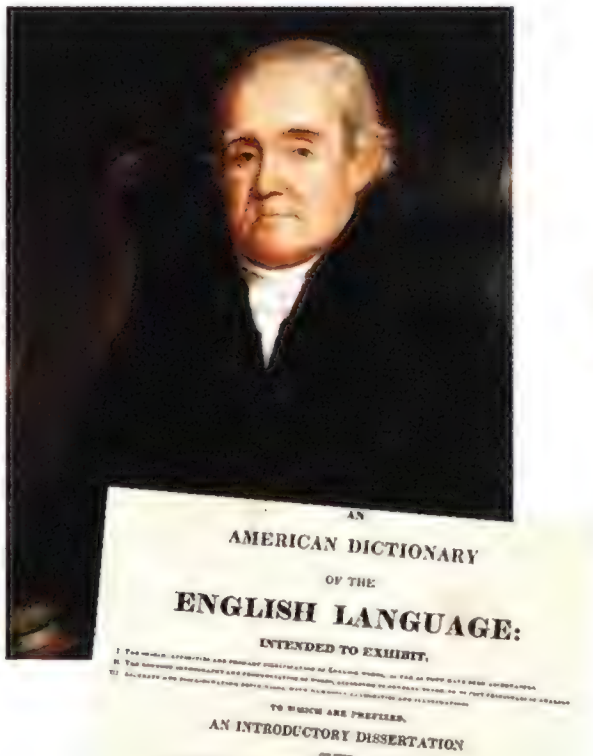
120 YEARS AGO: TIME TRAVEL
On November 18, 1883, Americans begin to reset their clocks—to Standard Time. The myriad local times observed across the country have become impractical as expanding railways speed more and more travelers hither and yon. To reduce confusion, four time zones, each an hour apart, are adopted. Daylight Saving Time comes along in 1918.

75 YEARS AGO: MOUSE MAGIC
Mickey Mouse and Walt Disney hit the big time with the November 18, 1928, première of Disney's first sound cartoon, *Steamboat Willie*. The struggling Disney has not found a market for two earlier silent Mickey films, but everything changes when the characters' movements are synchronized to songs, growls and squeaks. Mickey will star in more than 100 cartoons and spawn a TV show and fan club. By 2002 Disney will have become a $25 billion corporation.

40 YEARS AGO: PUSHING YOUR BUTTONS
Dialing goes futuristic as AT&T introduces TouchTone service and push-button telephones. Callers can push the phones' ten keys (* and # are added in 1968) faster than they can dial a rotary phone, and the electronic switching system means more automated service. If you want your old phone back, press 1 now.



175 YEARS AGO: SPELL CHECKER
Noah Webster's seminal American Dictionary of the English Language is published in 1828. The two-volume work defines 70,000 words (at least 12,000 for the first time) and promotes American pronunciation and usage. Its descendant, the current Webster's Third New International Dictionary, defines some 470,000 words. ○
—*ALISON McLEAN*



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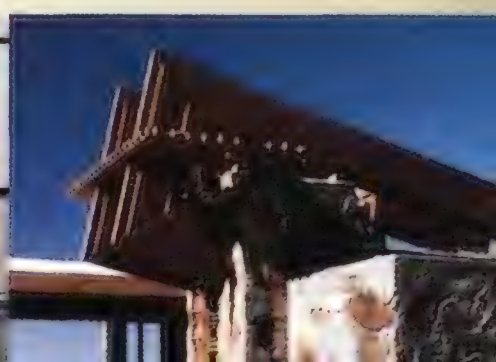

Magic Moments

A new book and a Paris arts center pay homage to photography's elusive 95-year-old grand master – BY SARAH BOXER

HENRI CARTIER-BRESSON MAGNUM PHOTOS

Cartier-Bresson captured scenes (the Gare Saint-Lazare, Paris, 1932) "in the nick of time," says scholar Jean-Noël Jeanneney, "before a whole world vanishes forever."

"I HAVE NO interest in photography," insists Henri Cartier-Bresson, 95, one of the founders of modern photojournalism. But this year would seem to prove him wrong: the Bibliothèque Nationale de France gave him a huge retrospective, the Fondation Henri Cartier-Bresson, a center for the study and display of works by Cartier-Bresson and other artists, opened in Paris, and Thames & Hudson published what it claims to be the definitive book on his career, *Henri Cartier-Bresson: The Man, the Image & the World, a Retrospective*.

Cartier-Bresson's place in history—as a documentary photographer with a boxer's timing and an artist's eye—was well set more than 50 years ago when he himself defined the perfect time to shoot a photograph as "the decisive moment," the instant a photographer recognizes the "significance of an event" as well as a "precise organization of forms."

Consider *Behind the Gare Saint-Lazare*, taken in Paris in 1932. A man has launched both himself and his reflection from a wooden ladder lying flat in a puddle in the railroad yard. What is he aiming for? In the next instant this strange double shape, man and mirror image, will certainly be destroyed in the splash. Still, the photograph has suspense. The man is about to be wet for all eternity.

Cartier-Bresson's instinct for the instantaneous, for catching life "*in flagrante delicto*," as he described it, is only part of his famous decisiveness. His life is also a study in impulse and resolve. Born in 1908 in Chanteloup, Seine-et-Marne, France, the eldest son of a well-to-do family, Cartier-Bresson avoided

"What are we dealing with?" he wonders.

Though a self-described believer in the "decisive moment," Cartier-Bresson (below, in June at age 94) shot many strikingly ambiguous images (above, *Alicante, Spain, 1933*).

the family business, textiles, to study painting with André Lhote. In 1931, he set out for Africa's Côte d'Ivoire, where he took his first photographs.

Since then, Cartier-Bresson has taken some 15,000 rolls of black-and-white film. He was in France for the liberation of Paris, with Gandhi in India only hours before his assassination, in China for the rise of Mao, in post-Stalinist Russia before any other foreign photographer. He has found his way into the studios of Henri Matisse, Pierre Bonnard and Alberto Giacometti and the homes of William Faulkner, Samuel Beckett and Ezra Pound.

Although Cartier-Bresson's work has appeared in the *Saturday Evening Post* and *Harper's Bazaar*, it plays just as well on museum walls. In 1947, the year Cartier-Bresson founded the cooperative photo agency Magnum with fellow war photographers Robert Capa, George Rodger, David Seymour and William Vandivert, he was also given a one-man show at the Museum of Modern Art in New York City. Cartier-Bresson's formal rigor and lyricism, as critic Andy Grundberg once pointed out in the *New York Times*, have been "almost universally admired in the museum world, where he is viewed as an important influence on Garry Winogrand, Lee Friedlander and other postwar 'street' photographers."

But Cartier-Bresson did not start out as a photographer and, curiously, has said he does not want to end up as one. After studying painting, he had a brief film career, serving as an assistant director on Jean Renoir's films *Une partie de campagne* (*A Day in the Country*) and *La Règle du jeu* (*The Rules of the Game*). He also directed five documentary films. These days he prefers drawing to photography. "Drawing is meditation," he told the *New York Times* in 1994. "Today, everyone talks about photography, but how many that I did can you look at for more than three seconds?"

Why, then, is he noted only for his photographs? A sequence from his 1945 documentary *Le Retour*, about war prisoners resuming their lives, hints at an answer. In the film, a woman in Dessau, Germany, who has just been released from a concentration camp, slugs the woman who betrayed her to the Gestapo. You see the punch and the recoil. The action is shocking, yes, but it does not measure up to Cartier-Bresson's photograph of the same event. Why? The reason is surprising. In the still, you can't tell whether the prisoner in the black dress is preparing to hit her betrayer or is just confronting her. The image is not decisive but rather highly ambiguous.

Indecisiveness, in fact, is a hallmark of many classic Cartier-Bresson shots. They are beautifully, even obsessively, composed, yet when it comes to pinpointing what is going on, psychologically or even factually, they seldom yield. In a photograph taken in Alicante, Spain, in 1933, a trio of people of ambiguous sexual inclination is engaged in some kind of mutual grooming. They eye the camera suspiciously. Or is it playfully? In the great 1946 portrait of Jean-Paul Sartre on a bridge in Paris, is the philosopher's walleyed gaze registering skepticism? Or is his eye just drifting? It is this uncertainty that allows the picture to function as an icon of postwar anxiety.

Robert Delpire, director of the Cartier-Bresson foundation, says the photographer's favorite question is, "*De quoi s'agit-il?*" ("What are we dealing with?") In 1947, Lincoln Kirstein, an arts patron and writer, described Cartier-Bresson's work as "intense and questioning." Could it be that Cartier-Bresson oversold the idea of the "decisive moment?"

These days, he scorns photography, although his wife, Martine Franck, is a photographer and he still, occasionally, takes pictures. He has said he has always thought of photography as "accelerated drawing." Maybe Cartier-Bresson would like photography better if it could be slowed down, made into something more meditative and exploratory, something more like drawing, something less . . . decisive. But isn't that what his photographs have always been? ○

SARAH BOXER, a New York Times *arts reporter, is the author of the novel* In the Floyd Archives: A Psycho-Bestiary.

HENRI CARTIER-BRESSON · MAGNUM PHOTOS

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Ouch!

A new finding that fish feel pain has set off a tortured debate about the ethics of angling ~ BY MICHAEL PARFIT

IN EARLY OCTOBER larch trees paint gold on the slopes of the Mission Mountains of western Montana and snow edges down from high rocks in waves, like a curtain blowing closed on summer. Men and women wade into the chilling waters of Rock Creek, Jocko River, Clark Fork and Blackfoot, casting coils of shining line for trout. For these enthusiasts, fly-fishing is a noble endeavor, a sport that borders on the spiritual. After all, it was these waters that gave birth to one of the immortal lines in a long history of fine fishing literature, the opening to Norman Maclean's *A River Runs Through It*: "In our family, there was no clear line between religion and fly fishing."

But this year new research has sent unsettling ripples across these serene waters. A team of animal biologists in Scotland, led by 29-year-old Lynne Sneddon, has reported that fish feel pain. In a series of experiments, Sneddon and her colleagues injected bee venom and acid into the lips of captive trout. Some of the fish, the team observed, rocked back and forth, rubbing their lips on the gravel beds of their tanks, behaving in ways, said Sneddon, that "fulfill the criteria for animal pain." (The team also identified a set of nerve endings—known as nociceptors—in the trout's lips.)

"The phone never stopped ringing for a week," Sneddon says, after their findings appeared in the April 30 issue of *Proceedings of the Royal Society: Biological Sciences*, a journal published by the Royal Society, an independent scientific research organization based in London. "I knew the anglers would be quite annoyed, but I didn't think it would have as big an impact as it did." Other articles followed in the *New York Times* and elsewhere under headlines such as "Anti-anglers fighting hook, line and sinker" and "Confessions of a man who fishes."

People for the Ethical Treatment of Animals (PETA), which has long opposed all forms of fishing, jumped on Sneddon's work as proof of the sport's cruelty. "It has nothing to do with whether fish are cute and cuddly," says William Rivas-Rivas, a PETA spokesman. "Anatomically, physiologically and biologically, these animals have a very complex system that allows them to feel pain."

The idea of fish in pain runs counter to fishing as wholesome family fun. After all, fishing is the way many children are introduced to the marvels of nature; for adults, it's a ticket to rich solitude and balm for the soul. Fishing is "like virtue, a reward to itself," wrote the 17th-century English writer Izaak Walton in *The Compleat Angler*. In re-

In April, British researchers announced that trout (above) have nerve endings in their lips that can feel the pain of a fishhook.

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"I knew anglers would be annoyed, but I didn't think it would have as big an impact."

It's wrong, says Sneddon, "to suggest that only humans and primates experience pain."

cent years, while pursuits such as hunting, bullfighting and boxing have been shunned as cruel by a growing percentage of the population, fishing has remained widely popular. In the United States, in 2001 (the most recent year for which statistics are available) nearly 35 million people—more than twice the number who hunt—spent $36 billion on sport fishing.

Among fishermen, the news that fishing might be a little less of a virtue and more like torture traveled fast. "The people who fish are a community," says Ian Frazier, an avid fisherman and the author of *The Fish's Eye* and many other books. "And just like the way a joke can go through a community, that news went through in days."

James Rose, a fisherman and a professor in the University of Wyoming's Department of Zoology and Physiology, wrote a scathing critique of Sneddon's findings, which appeared on the university Web site, claiming that they contained poor methodology and misinterpreted the data. The key to his objections centered around how animals perceive pain. He cited the Seattle-based International Association for the Study of Pain, which defines pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage. . . ." And, he said, the signals sent by nociceptors are not in themselves pain.

"Pain is purely a conscious experience," Rose went on. It has a sensory component that's basically information, which tells you what the nature of the injury is, and an emotional component, which is the suffering part, which makes the pain an unpleasant experience. Fish, he said, simply don't have the capability to experience suffering.

Rose compares a fish's reaction to stimulation to the way some quadriplegics respond when their extremities are irritated. "If you were to pinch the hand of a quadriplegic," Rose said, "the hand would pull back, but the person, unless he was watching, wouldn't have any awareness of that stimulation."

Sneddon isn't buying. It's not right "to suggest that only humans and primates experience pain," she says. "[Rose's] definition means that many other animals, including dogs, cats or birds, can't experience pain."

PETA's Rivas-Rivas agrees with Sneddon. "We can't prove whether fish have an emotional experience or not, because they're not speaking to you. But simply because they don't scream in pain in the way that we understand does not mean that they're not *feeling* pain."

Sneddon next wants to see if a trout's reaction to bee venom injections is sufficiently severe to prevent it from engaging in other behaviors, such as responding to fear. This line of inquiry will reveal just how strong the pain—or whatever the experience should be called—actually is.

Her work could throw fishing ethics into disarray. For many years people who practiced "catch and release," a kind of fishing in which the quarry is turned loose as gently as possible in order to keep fish populations high, held the sport's moral high ground. But if pain is a consideration, the fisherman who fishes only for food could displace those indulging in wanton cruelty.

Frazier says Sneddon's research doesn't surprise him. "I've seen fish I've released do things that look as if they're hurt. So I've never doubted that they didn't feel it in some real way."

Why, then, does he continue to fish? "The only reason just sounds selfish," he says. "I do it because I feel like it, and because my desire to do it overwhelms my guilt about it." Most people who cast for trout, he says, understand that the hard truth about nature is that what runs through it is a river of blood. "Fishing is one of the few remaining ways we have in this technological, crowded world to maintain a bond with nature."

"The fact that I'm causing pain is never out of my mind," Frazier adds. "I'm not going to say I'll give up fishing, because that's just not going to happen. But I make it part of how I fish. I watch more and fish less." ○

MICHAEL PARFIT wrote about his walk across England in the September issue.

CAROLYN T. DANCOLI

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LEAPING LIZARDS! "The higher you jump, the better you can catch the ball," says Mike Guevara, explaining why his Oxnard (California) High School football coaches wanted to test his levitation capacities. Guevara managed a 31.6-inch liftoff. Anything over 30 inches, says assistant coach David Page (far right), "is quite respectable." Guevara, 18, is now a wide receiver at Pierce College in Woodland Hills, California. Photograph by Chris Schneider for the *Ventura County Star*. —*HELEN E. STARKWEATHER*

CAN A SECURITY BLANKET
BE MADE OF SHEET METAL?

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Antique Road Show

Before the Interstates passed the highway by,
America got its kicks on Route 66 ~ BY OWEN EDWARDS

Almost as soon as it opened in 1932, Route 66 (a cut section, above) fueled America's wanderlust and beckoned to travelers (top, in 1945) to head west for milk and honey.

BETTMANN/CORBIS (TOP); SMITHSONIAN INSTITUTION

BACK WHEN THE Model A Ford was America's ticket to ride, it must have seemed that half the nation was heading west on Route 66. In fact, the late songwriter Bobby Troup penned "Get Your Kicks on Route 66" during his own trip west on that legendary highway just after World War II, not only launching a songwriting career but also placing the road in the mythos of America. Those who took to the highway in the 1930s to escape drought in the Midwest and cross the desert to California might have been more inclined, if you'll allow me a complete anachronism, to hum a few bars of the hard-rock classic "Highway to Hell." What it was, more accurately, was a highway *from* hell, with the hope of a paradise at the western end of a paved rainbow.

In today's age of major four- and six-lane thoroughfares to and from just about everywhere, it's not easy to conceive just how powerfully one stretch of two-lane highway could grip America's collective imagination. This country has historically looked west for a better tomorrow—Daniel Boone and his fellow woodsmen headed for the setting sun as soon as they could see three or four cabins from their homesteads. So when Henry Ford began producing affordable cars, and the Federal Highway Act of 1921 led to the linking of rural

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Route 66 correspondent Ernie Pyle wrote: "My home is America."

roads, a great convergence took place. The Way West, once a rigorous and dangerous passage by covered wagon, was even in the age of the Model T not a trip to be taken lightly. But it became far less daunting when Cyrus Avery of Tulsa, Oklahoma, a state highway official, and businessman John Woodruff of Springfield, Missouri, got the bright notion that there ought to be, in Avery's canny catchphrase, a "Main Street of America." The proposal to merge countless state roads into a true national artery was approved by Congress in 1926; the project was completed six years later.

Though not the first paved highway in the United States, Route 66 is the most storied, and quickly became a metaphor—the fabled two-lane blacktop—for this country's restless, rolling romanticism. (In fact, the road was sometimes dark asphalt, sometimes light-colored concrete.) So if ever a chunk of roadway belonged in a museum, it is the 40-foot-long, 20-foot-wide concrete section of Route 66 that will be displayed as part of the "America on the Move" exhibition at the National Museum of American History (NMAH), which opens November 22. This piece, representing the entire 2,448 miles of a road—now buried under or bypassed by Interstates—that once connected eight states, was taken from a two-mile section near Bridgeport, Oklahoma. According to curator Steven Lubar, he and his colleagues were looking for artifacts of travel when they contacted historians who specialize in the history of Route 66. The NMAH researchers learned that, in Oklahoma, a section of the old highway was about to be replaced by a new interchange and was scheduled to be removed. "It seemed," says Lubar, "the best artifact of all."

Moving the *Mona Lisa* from the Louvre to a museum in another country may be more nerve-racking than shipping concrete slabs to Washington, D.C., but logistically it might just be a lot easier. Instructors at a truck-driver school in Oklahoma volunteered for the job. The section of highway, originally 50 feet, was cut into 12 pieces and loaded onto flatbed trucks, then rejoined on a steel framework in the Transportation Hall at NMAH. "I tend to worry about things that can go wrong," Lubar admits, "so I was thrilled when the trucks arrived and the road was actually here."

Almost from its official opening, Route 66 fired imaginations. Ernie Pyle, later to become the most famous correspondent of World War II, was

The fabled road (a c. 1955 postcard) stretched 2,448 miles.

hired by the Scripps-Howard newspapers to journey across America and write about his experiences along the way. The assignment turned into an epic. Pyle traveled Route 66 from 1935 until 1940, crossing to Los Angeles and back 20 times, wearing out two cars and five sets of tires. "I have no home," he wrote. "My home is where my extra luggage is, and where my car is stored, and where I happen to be getting mail this time. My home is America."

Route 66 served most famously as an escape route for farm families driven off their land by the Great Depression and its infernal natural ally, the Dust Bowl drought that dragged on through most of the '30s. In *The Grapes of Wrath*, John Steinbeck placed his desperate refugees on the highway, heading to further hardship in California. In the early '50s, Route 66 took a turn as part of the seemingly endless—some might say interminable—highway in Jack Kerouac's *On the Road*. The wanderer-behind-the-wheel theme hooked a national audience in 1960, when the hit television series "Route 66"—charting the existential odyssey of characters Tod Stiles and Buz Murdock crossing the United States in a Corvette convertible—began a four-year run.

The legend of the highway had a way of seeping into family lore. I remember vividly my parents returning from a wartime car trip from New Jersey to L.A. via Chicago and back again. My father proudly showed his home movies of their desert crossing (as if he and my mother had pioneered the route themselves) with canvas bags of water draped over side windows to provide a primitive form of air conditioning.

With its bare-bones "motor courts"—precursors to motels—restaurants, souvenir shops and trailer parks (filled with gleaming Airstreams), the highway had a culture all its own. Country singers and writers established the idea of a home away from home for what quickly became a nation of drivers. Even today, when fewer and fewer of us have experienced America's Main Street, the ghost of the great road lingers. Cabaret performers sing its glories; a beverage company in Charlottesville, Virginia, markets a root beer called—you guessed it—Root 66.

In 1956, Congress passed legislation to create the Interstate System, a vast, efficient network intended to facilitate strategic transportation during the Cold War and link the nation's cities. By the '70s, Route 66 was history. "Not many people look down as they walk through a museum," says curator Lubar, "so I'm curious to see how visitors respond to finding Route 66 under their feet. I hope they'll be surprised." ○

OWEN EDWARDS is a freelance writer who is based in Sonoma, California.

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Tribal Talk

Immersion schools try to revive and preserve Native American languages – BY MICHELLE NIJHUIS

JESSE DESROSIER begins each school day like lots of kids. The eighth grader hangs up his coat, pulls off his muddy boots and lopes into his classroom, raising a hand in greeting. Then he opens his mouth, and out comes a small miracle.

"Oki, aahsaapinakos!"

Hello, good morning! Bantering easily in the drawn-out vowels and clipped endings of a nearly extinct language, Jesse and his 35 classmates are the first fluent Blackfoot speakers in more than two generations. Here at the Nizipuhwahsin, or Real Speak School, on the Blackfeet Reservation in far northwestern Montana, the kids spend all day speaking their ancestral tongue. From kindergarten through eighth grade, they study math, reading, history and other subjects in Blackfoot.

"Some people think our language is dead, but it's not," says DesRosier, a lanky teenager with a ready grin and dark, narrow braids that reach the middle of his back. "We still have our language and we're bringing it back."

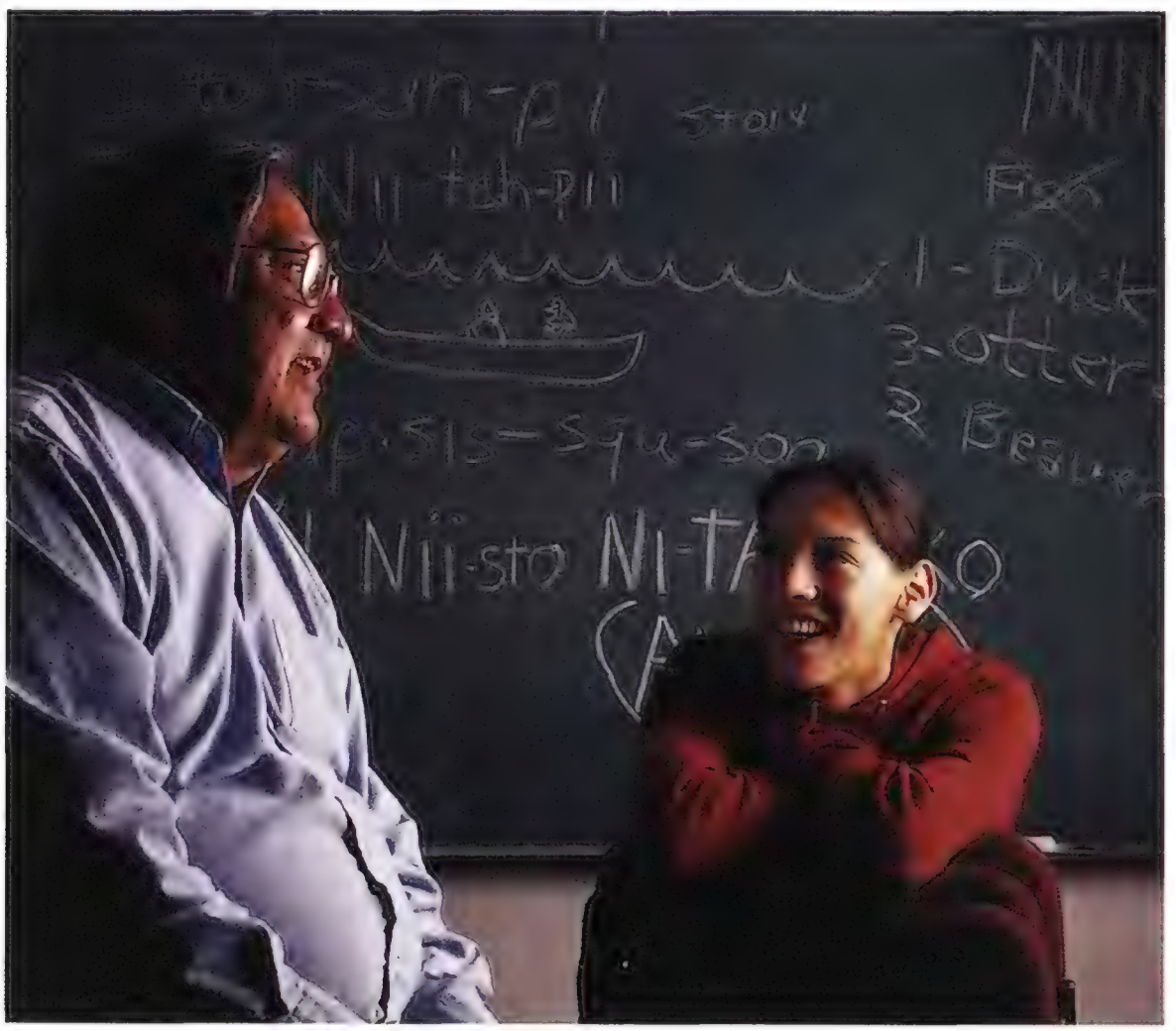
What's at stake is more than words. Filled with nuance and references to Blackfeet history and traditions, the language embodies a culture. "The language allows kids to unravel the mysteries of their heritage," says Darrell Kipp, director of the school and one of its founders.

The Blackfoot language, also known as Piegan, has been in danger of disappearing for nearly a century. From the late 1800s through the 1960s, the Bureau of Indian Affairs forced tens of thousands of Native Americans into English-only government boarding schools. Taken hundreds of miles from the reservations, the children were often beaten for speaking native languages and sent home ashamed of them. As adults, they cautioned their own children to speak English only.

"We were told, 'You'd be better off learning only English, so what happened to us won't happen to you,'" says 68-year-old Cynthia Kipp, whose grandchildren attend Real Speak.

Over the decades, many tribal languages fell silent. Of the 300 languages spoken in North America at the time of European settlement, 150 have disappeared completely, and only a handful of the survivors are acquiring new speakers. By 1980, the remaining Blackfoot speakers were more than 50 years old, and Blackfoot was headed down the well-worn road to oblivion.

But in 1982, Darrell Kipp, now 59, a Harvard graduate and technical writer (and distant cousin of Cynthia Kipp), moved back to the reservation's windblown plains after a 20-year absence. He met up with Dorothy Still Smoking, who had also returned, in 1979, after earning a master's from the University of South Dakota, to become a dean at the reservation's community college. Both wanted to learn the language they'd occasionally heard but rarely spoke as children. "There was always a missing piece in my life," says Still Smoking, 54, "and that was the cultural component. The language



"Our language is not dead," says Jesse DesRosier, 14 (with school director Darrell Kipp).

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"People realized we didn't give up our language by choice."

Language immersion helps heal the "identity confusion" of young Native Americans.

contains everything—our values and wisdom, our outlook on the world."

In 1987, Kipp, Still Smoking, and a fluent Blackfoot speaker named Edward Little Plume, 73, founded the nonprofit Piegan Institute, dedicated to restoring Blackfoot and other tribal languages. Because many people on the reservation still associated their language with humiliating experiences at boarding school, the institute was controversial. "We met people who could not only not speak the language but also had a negative view of it," says Kipp.

To calm the waters, Kipp, Still Smoking and Little Plume made a video about tribal elders' experiences with the language and distributed 2,000 copies among the reservation's 7,000 residents. The video did the trick. "People realized we didn't give up the language by choice," says Kipp. "Our parents and grandparents didn't pass it on to us because they didn't want us to be abused."

Now Kipp and his colleagues had to figure out the best way to teach fluency. Though some local high schools had offered tribal language classes for years, these brief encounters taught familiarity, not fluency. "I'd teach the numbers up to five, and by the next week they'd have forgotten them," says Arthur Westwolf, a Real Speak teacher who worked in the reservation's public schools for 18 years.

In the early 1980s, the Maori of New Zealand and native Hawaiian Islanders had pioneered a different strategy by creating immersion centers called language nests, in which students hear and speak their ancestral language all day.

Intrigued by this approach, Kipp and the others raised private foundation grants sufficient to start classes at day care centers in 1995. Four years later, they finished construction of Real Speak, a one-story, three-classroom school in Browning, Montana.

Today, demand for the few openings at the school, where tuition is $100 a month, has parents signing up their toddlers, and the school's large, airy classrooms explode with activity. While younger students review their numbers or sing a Blackfoot version of "Frère Jacques," older students present illustrated short stories they've written in Blackfoot, work on math problems or visit the local senior center.

Though students may have heard no more than a few words of Blackfoot before entering, they are soon chatting and joking in the language. They also use it outside the classroom: one second grader, Leo John Bird III, plans to say a prayer in Blackfoot at a rodeo in memory of his grandfather, while other students rehearse a play about the Lewis and Clark expedition that they plan to perform at the University of Montana.

The school has received visitors from other tribes, including the Tlingit of Alaska and the Pechanga of Southern California. The Washoe recently opened an immersion school in Nevada, and the Ojibwa have established several such programs in Minnesota and Wisconsin. In Montana, two other tribes have started their own immersion programs.

Supporters say the impact runs deep. "This is a way to heal the identity confusion that so many of our students go through," says Joyce Silverthorne, a tribal education director and member of the Montana Board of Public Education. Through immersion, she says, students "become well grounded in who they are." In Indian Country, where the frequency of suicide among adolescents is more than double the national rate, such confidence can be, literally, a lifesaver.

"It makes kids proud to be Blackfeet," says Jesse DesRosier, who recently graduated from Real Speak but returns for language classes. "When I have kids, I want to try and put them in this school." And that's not all. "We beat the public school in flag football. We did all our plays in Indian, and the other team didn't know what we were saying. That's how we won." ○

Freelance writer MICHELLE NIJHUIS *lives in western Colorado.*

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Syncopal episodes have been reported in association with the use of ARICEPT®. ***Gastrointestinal Conditions:*** Through their primary action, cholinesterase inhibitors may be expected to increase gastric acid secretion due to increased cholinergic activity. Therefore, patients should be monitored closely for symptoms of active or occult gastrointestinal bleeding, especially those at increased risk for developing ulcers, e.g., those with a history of ulcer disease or those receiving concurrent nonsteroidal anti-inflammatory drugs (NSAIDS). Clinical studies of ARICEPT® have shown no increase, relative to placebo, in the incidence of either peptic ulcer disease or gastrointestinal bleeding. ARICEPT®, as a predictable consequence of its pharmacological properties, has been shown to produce diarrhea, nausea and vomiting. These effects, when they occur, appear more frequently with the 10 mg/day dose than with the 5 mg/day dose. In most cases, these effects have been mild and transient, sometimes lasting one to three weeks, and have resolved during continued use of ARICEPT®. ***Genitourinary:*** Although not observed in clinical trials of ARICEPT®, cholinomimetics may cause bladder outflow obstruction. ***Neurological Conditions:*** Seizures: Cholinomimetics are believed to have some potential to cause generalized convulsions. However, seizure activity also may be a manifestation of Alzheimer's Disease. ***Pulmonary Conditions:*** Because of their cholinomimetic actions, cholinesterase inhibitors should be prescribed with care to patients with a history of asthma or obstructive pulmonary disease. **PRECAUTIONS Drug-Drug Interactions** ***Drugs Highly Bound to Plasma Proteins:*** Drug displacement studies have been performed *in vitro* between this highly bound drug (96%) and other drugs such as furosemide, digoxin, and warfarin. ARICEPT® at concentrations of 0.3-10 µg/mL did not affect the binding of furosemide (5 µg/mL), digoxin (2 ng/mL), and warfarin (3 µg/mL) to human albumin. Similarly, the binding of ARICEPT® to human albumin was not affected by furosemide, digoxin, and warfarin. ***Effect of ARICEPT® on the Metabolism of Other Drugs:*** No *in vivo* clinical trials have investigated the effect of ARICEPT® on the clearance of drugs metabolized by CYP 3A4 (e.g. cisapride, terfenadine) or by CYP 2D6 (e.g. imipramine). However, *in vitro* studies show a low rate of binding to these enzymes (mean K_i about 50-130 µM), that, given the therapeutic plasma concentrations of donepezil (164 nM), indicates little likelihood of interference. Whether ARICEPT® has any potential for enzyme induction is not known. ***Effect of Other Drugs on the Metabolism of ARICEPT®:*** Ketoconazole and quinidine, inhibitors of CYP450, 3A4 and 2D6, respectively, inhibit donepezil metabolism *in vitro*. Whether there is a clinical effect of these inhibitors is not known. Inducers of CYP 2D6 and CYP 3A4 (e.g., phenytoin, carbamazepine, dexamethasone, rifampin, and phenobarbital) could increase the rate of elimination of ARICEPT®. ***Use with Anticholinergics:*** Because of their mechanism of action, cholinesterase inhibitors have the potential to interfere with the activity of anticholinergic medications. ***Use with Cholinomimetics and Other Cholinesterase Inhibitors:*** A synergistic effect may be expected when cholinesterase inhibitors are given concurrently with succinylcholine, similar neuromuscular blocking agents or cholinergic agonists such as bethanechol. **Carcinogenesis, Mutagenesis, Impairment of Fertility** Carcinogenicity studies of donepezil have not been completed. Donepezil was not mutagenic in the Ames reverse mutation assay in bacteria. In the chromosome aberration test in cultures of Chinese hamster lung (CHL) cells, some clastogenic effects were observed. Donepezil was not clastogenic in the *in vivo* mouse micronucleus test. Donepezil had no effect on fertility in rats at doses up to 10 mg/kg/day (approximately 8 times the maximum recommended human dose on a mg/m² basis). **Pregnancy** ***Pregnancy Category C:*** Teratology studies conducted in pregnant rats at doses up to 16 mg/kg/day (approximately 13 times the maximum recommended human dose on a mg/m² basis) and in pregnant rabbits at doses up to 10 mg/kg/day (approximately 16 times the maximum recommended human dose on a mg/m² basis) did not disclose any evidence for a teratogenic potential of donepezil. However, in a study in which pregnant rats were given up to 10 mg/kg/day (approximately 8 times the maximum recommended human dose on a mg/m² basis) from day 17 of gestation through day 20 postpartum, there was a slight increase in still births and a slight decrease in pup survival through day 4 postpartum at this dose; the next lower dose tested was 3 mg/kg/day. There are no adequate or well-controlled studies in pregnant women. ARICEPT® should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. **Nursing Mothers** It is not known whether donepezil is excreted in human breast milk. ARICEPT® has no indication for use in nursing mothers. **Pediatric Use** There are no adequate and well-controlled trials to document the safety and efficacy of ARICEPT® in any illness occurring in children. **ADVERSE REACTIONS Adverse Events Leading to Discontinuation** The rates of discontinuation from controlled clinical trials of ARICEPT® due to adverse events for the ARICEPT® 5 mg/day treatment groups were comparable to those of placebo-treatment groups at approximately 5%. The rate of discontinuation of patients who received 7-day escalations from 5 mg/day to 10 mg/day, was higher at 13%. The most common adverse events leading to discontinuation, defined as those occurring in at least 2% of patients and at twice the incidence seen in placebo patients, are shown in Table 1.

Table 1. Most Frequent Adverse Events Leading to Withdrawal from Controlled Clinical Trials by Dose Group

Dose Group	Placebo	5 mg/day ARICEPT®	10 mg/day ARICEPT®
Patients Randomized	355	350	315
Event/%Discontinuing			
Nausea	1%	1%	3%
Diarrhea	0%	<1%	3%
Vomiting	<1%	<1%	2%

Most Frequent Adverse Clinical Events Seen in Association with the Use of ARICEPT® The most common adverse events, defined as those occurring at a frequency of at least 5% in patients receiving 10 mg/day and twice the placebo rate, are largely predicted by ARICEPT®'s cholinomimetic effects. These include nausea, diarrhea, insomnia, vomiting, muscle cramp, fatigue and anorexia. These adverse events were often of mild intensity and transient, resolving during continued ARICEPT® treatment without the need for dose modification. There is evidence to suggest that the frequency of these common adverse events may be affected by the rate of titration. An open-label study was conducted with 269 patients who received placebo in the 15- and 30-week studies. These patients were titrated to a dose of 10 mg/day over a 6-week period. The rates of common adverse events were lower than those seen in patients titrated to 10 mg/day over one week in the controlled clinical trials and were comparable to those seen in patients on 5 mg/day. See Table 2 for a comparison of the most common adverse events following one and six week titration regimens.

Table 2. Comparison of Rates of Adverse Events in Patients Titrated to 10 mg/day Over 1 and 6 Weeks

	No titration		One-week titration	Six-week titration
Adverse Event	**Placebo (n=315)**	**5 mg/day (n=311)**	**10 mg/day (n=315)**	**10 mg/day (n=269)**
Nausea	6%	5%	19%	6%
Diarrhea	5%	8%	15%	9%
Insomnia	6%	6%	14%	6%
Fatigue	3%	4%	8%	3%
Vomiting	3%	3%	8%	5%
Muscle cramps	2%	6%	8%	3%
Anorexia	2%	3%	7%	3%

Adverse Events Reported in Controlled Trials The events cited reflect experience gained under closely monitored conditions of clinical trials in a highly selected patient population. In actual clinical practice or in other clinical trials, these frequency estimates may not apply, as the conditions of use, reporting behavior, and the kinds of patients treated may differ. Table 3 lists treatment emergent signs and symptoms that were reported in at least 2% of patients in placebo-controlled trials who received ARICEPT® and for which the rate of occurrence was greater for ARICEPT® assigned than placebo assigned patients. In general, adverse events occurred more frequently in female patients and with advancing age.

Table 3. Adverse Events Reported in Controlled Clinical Trials in at Least 2% of Patients Receiving ARICEPT® (donepezil HCl) and at a Higher Frequency than Placebo-treated Patients

Body System/Adverse Event	Placebo (n=355)	ARICEPT® (n=747)
Percent of Patients with any Adverse Event	**72**	**74**
Body as a Whole		
Headache	9	10
Pain, various locations	8	9
Accident	6	7
Fatigue	3	5
Cardiovascular System		
Syncope	1	2
Digestive System		
Nausea	6	11
Diarrhea	5	10
Vomiting	3	5
Anorexia	2	4
Hemic and Lymphatic System		
Ecchymosis	3	4
Metabolic and Nutritional Systems		
Weight Decrease	1	3
Musculoskeletal System		
Muscle Cramps	2	6
Arthritis	1	2
Nervous System		
Insomnia	6	9
Dizziness	6	8
Depression	<1	3
Abnormal Dreams	0	3
Somnolence	<1	2
Urogenital System		
Frequent Urination	1	2

Other Adverse Events Observed During Clinical Trials ARICEPT® has been administered to over 1700 individuals during clinical trials worldwide. Approximately 1200 of these patients have been treated for at least 3 months and more than 1000 patients have been treated for at least 6 months. Controlled and uncontrolled trials in the United States included approximately 900 patients. In regards to the highest dose of 10 mg/day, this population includes 650 patients treated for 3 months, 475 patients treated for 6 months and 116 patients treated for over 1 year. The range of patient exposure is from 1 to 1214 days. Treatment emergent signs and symptoms that occurred during 3 controlled clinical trials and two open-label trials in the United States were recorded as adverse events by the clinical investigators using terminology of their own choosing. To provide an overall estimate of the proportion of individuals having similar types of events, the events were grouped into a smaller number of standardized categories using a modified COSTART dictionary and event frequencies were calculated across all studies. These categories are used in the listing below. The frequencies represent the proportion of 900 patients from these trials who experienced that event while receiving ARICEPT®. All adverse events occurring at least twice are included, except for those already listed in Tables 2 or 3, COSTART terms too general to be informative, or events less likely to be drug caused. Events are classified by body system and listed using the following definitions: *frequent adverse events*—those occurring in at least 1/100 patients; *infrequent adverse events*—those occurring in 1/100 to 1/1000 patients. These adverse events are not necessarily related to ARICEPT® treatment and in most cases were observed at a similar frequency in placebo-treated patients in the controlled studies. No important additional adverse events were seen in studies conducted outside the United States. **Body as a Whole:** *Frequent:* influenza, chest pain, toothache; *Infrequent:* fever, edema face, periorbital edema, hernia hiatal, abscess, cellulitis, chills, generalized coldness, head fullness, listlessness. **Cardiovascular System:** *Frequent:* hypertension, vasodilation, atrial fibrillation, hot flashes, hypotension; *Infrequent:* angina pectoris, postural hypotension, myocardial infarction, AV block (first degree), congestive heart failure, arteritis, bradycardia, peripheral vascular disease, supraventricular tachycardia, deep vein thrombosis. **Digestive System:** *Frequent:* fecal incontinence, gastrointestinal bleeding, bloating, epigastric pain; *Infrequent:* eructation, gingivitis, increased appetite, flatulence, periodontal abscess, cholelithiasis, diverticulitis, drooling, dry mouth, fever sore, gastritis, irritable colon, tongue edema, epigastric distress, gastroenteritis, increased transaminases, hemorrhoids, ileus, increased thirst, jaundice, melena, polydipsia, duodenal ulcer, stomach ulcer. **Endocrine System:** *Infrequent:* diabetes mellitus, goiter. **Hemic and Lymphatic System:** *Infrequent:* anemia, thrombocythemia, thrombocytopenia, eosinophilia, erythrocytopenia. **Metabolic and Nutritional Disorders:** *Frequent:* dehydration; *Infrequent:* gout, hypokalemia, increased creatine kinase, hyperglycemia, weight increase, increased lactate dehydrogenase. **Musculoskeletal System:** *Frequent:* bone fracture; *Infrequent:* muscle weakness, muscle fasciculation. **Nervous System:** *Frequent:* delusions, tremor, irritability, paresthesia, aggression, vertigo, ataxia, increased libido, restlessness, abnormal crying, nervousness, aphasia; *Infrequent:* cerebrovascular accident, intracranial hemorrhage, transient ischemic attack, emotional lability, neuralgia, coldness (localized), muscle spasm, dysphoria, gait abnormality, hypertonia, hypokinesia, neurodermatitis, numbness (localized), paranoia, dysarthria, dysphasia, hostility, decreased libido, melancholia, emotional withdrawal, nystagmus, pacing. **Respiratory System:** *Frequent:* dyspnea, sore throat, bronchitis; *Infrequent:* epistaxis, post nasal drip, pneumonia, hyperventilation, pulmonary congestion, wheezing, hypoxia, pharyngitis, pleurisy, pulmonary collapse, sleep apnea, snoring. **Skin and Appendages:** *Frequent:* pruritus, diaphoresis, urticaria; *Infrequent:* dermatitis, erythema, skin discoloration, hyperkeratosis, alopecia, fungal dermatitis, herpes zoster, hirsutism, skin striae, night sweats, skin ulcer. **Special Senses:** *Frequent:* cataract, eye irritation, vision blurred; *Infrequent:* dry eyes, glaucoma, earache, tinnitus, blepharitis, decreased hearing, retinal hemorrhage, otitis externa, otitis media, bad taste, conjunctival hemorrhage, ear buzzing, motion sickness, spots before eyes. **Urogenital System:** *Frequent:* urinary incontinence, nocturia; *Infrequent:* dysuria, hematuria, urinary urgency, metrorrhagia, cystitis, enuresis, prostate hypertrophy, pyelonephritis, inability to empty bladder, breast fibroadenosis, fibrocystic breast, mastitis, pyuria, renal failure, vaginitis. **Postintroduction Reports** Voluntary reports of adverse events temporally associated with ARICEPT® that have been received since market introduction that are not listed above, and that there is inadequate data to determine the causal relationship with the drug include the following: abdominal pain, agitation, cholecystitis, confusion, convulsions, hallucinations, heart block (all types), hemolytic anemia, hepatitis, hyponatremia, neuroleptic malignant syndrome, pancreatitis, and rash. **OVERDOSAGE Because strategies for the management of overdose are continually evolving, it is advisable to contact a Poison Control Center to determine the latest recommendations for the management of an overdose of any drug.** As in any case of overdose, general supportive measures should be utilized. Overdosage with cholinesterase inhibitors can result in cholinergic crisis characterized by severe nausea, vomiting, salivation, sweating, bradycardia, hypotension, respiratory depression, collapse and convulsions. Increasing muscle weakness is a possibility and may result in death if respiratory muscles are involved. Tertiary anticholinergics such as atropine may be used as an antidote for ARICEPT® overdosage. Intravenous atropine sulfate titrated to effect is recommended: an initial dose of 1.0 to 2.0 mg IV with subsequent doses based upon clinical response. Atypical responses in blood pressure and heart rate have been reported with other cholinomimetics when co-administered with quaternary anticholinergics such as glycopyrrolate. It is not known whether ARICEPT® and/or its metabolites can be removed by dialysis (hemodialysis, peritoneal dialysis, or hemofiltration). Dose-related signs of toxicity in animals included reduced spontaneous movement, prone position, staggering gait, lacrimation, clonic convulsions, depressed respiration, salivation, miosis, tremors, fasciculation and lower body surface temperature. **DOSAGE AND ADMINISTRATION** The dosages of ARICEPT® shown to be effective in controlled clinical trials are 5 mg and 10 mg administered once per day. The higher dose of 10 mg did not provide a statistically significantly greater clinical benefit than 5 mg. There is a suggestion, however, based upon order of group mean scores and dose trend analyses of data from these clinical trials, that a daily dose of 10 mg of ARICEPT® might provide additional benefit for some patients. Accordingly, whether or not to employ a dose of 10 mg is a matter of prescriber and patient preference. Evidence from the controlled trials indicates that the 10 mg dose, with a one week titration, is likely to be associated with a higher incidence of cholinergic adverse events than the 5 mg dose. In open label trials using a 6 week titration, the frequency of these same adverse events was similar between the 5 mg and 10 mg dose groups. Therefore, because steady state is not achieved for 15 days and because the incidence of untoward effects may be influenced by the rate of dose escalation, treatment with a dose of 10 mg should not be contemplated until patients have been on a daily dose of 5 mg for 4 to 6 weeks. ARICEPT® should be taken in the evening, just prior to retiring, and may be taken with or without food.

Eisai Inc. Teaneck, NJ 07666 Pfizer U.S. Pharmaceuticals New York, NY 10017

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All Creatures Great and Small

Two hundred and seventy-four of the world's most exotic mammals go on display at the Museum of Natural History

THE MALE ORANGUTAN emits an aura of power and grace: frozen in mid-swing, its lanky arms are outstretched and its shaggy, rust-colored hair flutters in a steady breeze. Only on closer inspection does the illusion of life fade. The ape's hands grasp plastic pipes rather than branches, upholstery nails line the inside of its arms, and a large fan generates the wind. Near the great ape in the cavernous suburban Washington, D.C. warehouse stands an exotic menagerie of other creatures in suspended animation, including a male lion and an oryx nursing her young.

These animals are in the last phase of an extraordinary journey in which life is re-created out of death. Orchestrating that transformation is Smithsonian taxidermist John Matthews, 41, who has been leading a five-member team on a more than two-year effort to prepare 274 specimens for the new mammal hall opening this month at the National Museum of Natural History.

"People think [taxidermy] is all blood and guts, but it's not," Matthews says, gesturing at the nearly blood-free tabletops littered with inside-out animal hides, carpentry tools, partially carved foam limbs and other odds and ends. Rather, it's a painstaking craft that requires the skills of a naturalist, artist, tailor, carpenter and hairdresser all rolled into one.

Taxidermists Rhymer (top), Matthews and Ken Walker (kneeling next to male orangutan): Michelangelos in foam.

Matthews, a fast-talking New Englander, first dabbled in taxidermy in seventh grade before rising to the top of his profession, which today boasts about 75,000 practitioners nationwide.

Some of the hall's animals—including a white rhino shot by Theodore Roosevelt in 1909—were taken from the old hall and remounted or simply cleaned up. The ear of a South American tapir received a dab of epoxy putty, which was then textured to match adjoining skin, while a Bengal tiger's fur was freshened with a little carefully matched Garnier Nutrisse "Luscious Mango" hair coloring.

When a visitor connects, says Rhymer, you've done "what you set out to do."

The rest of the specimens—including the orangutan, which came from the National Zoo—are more recently departed residents of zoos, game preserves and research facilities. The hall's 202-pound female gorilla spent six years at the Buffalo Zoo in Buffalo, New York, before being euthanized in July 1999 because of stomach cancer.

Matthews and fellow taxidermist Paul Rhymer skinned her carcass, tanned the pelt, manipulated the body into the desired pose—walking hunched over, her eyes looking at visitors—then traced the outline onto a block of foam, which they carved. It's "like Michelangelo made sculptures in stone, except we're doing the same thing with foam," says Matthews. They created a fiberglass mold and used it to craft a more durable polyurethane form. A thin layer of clay gave definition to the gorilla's muscles.

The recently oiled and hydrated skin was sewn onto the form and periodically readjusted as it dried and shrunk. Made-to-order glass eyes and a plastic septum were added, along with nostrils and eyelids sculpted out of putty. The gorilla's skin, which had lost its natural color during the tanning process, was painted with burnt umber and black paint.

As challenging as the large mammals were, some of the tiniest animals, such as a thumb-size grasshopper mouse and a pink fairy armadillo, proved even more, er, taxing. Except for an 18-foot-tall giraffe, which was mounted directly in the hall for obvious reasons, the finished animals were crated and trucked to the museum. The payoff for all this hard work comes when they "stir an emotion in people," Matthews says. Rhymer nods in agreement: "When you see a visitor make a connection with an animal," he says, "that's when you know you've accomplished what you set out to do."

—LUBA VANGELOVA

FROM THE ATTIC

UNCLE SAM WANTS YOUR MUSEUM On October 13, 1917, seven months after declaring war on Germany, President Woodrow Wilson informed Smithsonian Secretary Charles D. Walcott that the nation required the use of 10,000 square feet of the Institution's seven-year-old *beaux-arts* building, today's National Museum of Natural History. "You appreciate, I know, the difficulties all Departments are having in these war times to find adequate accommodations for Government service," wrote Wilson, who needed a home for the Treasury Department's War Risk Insurance Bureau. Within days, museum staff carted away a babirusa (a wild hog of Borneo), a zebu (a sacred cow of India), a Manchurian tiger, a proboscis monkey and dozens of other taxidermic masterpieces. Into the mammal hall marched 500 secretaries, clerks and actuaries (above), who stayed for 18 months administering a life insurance program for America's soldiers. This November 15, the newly renovated hall opens as the Kenneth E. Behring Family Hall of Mammals. Note to President George W. Bush: the space is not available. *—BETH PY-LIEBERMAN*

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Morganucodon, a.k.a. "Morgie," lived 210 million years ago and was the world's first true mammal.

The Mother of All Mammals

An artist and scientist collaborated to build the first ever 3-D model of the oldest known mammal, a shrewlike creature called Morgie

FOR COLORADO ARTIST Gary Staab, who's renowned for his life-size recreations of large prehistoric creatures, the Smithsonian's request last March that he sculpt a model of a four-inch shrewlike mammal came as a bit of a surprise. But Staab, 36, quickly warmed to the task, because the 210 million-year-old *Morganucodon* (or Morgie, for short) is no mere rodent, but the ancestor of today's more than 5,000 species of mammals, including humans, and the centerpiece of the National Museum of Natural History's new Kenneth E. Behring Family Hall of Mammals. A collaboration between the artist and the hall's co-curator, paleobiologist Kay Behrensmeyer, has resulted in the first ever 3-D representation of Morgie and provides an opportunity to look back in time to the point in evolution when mammals diverged from reptiles.

One challenging aspect of the project was that "there are no complete skeletons of *Morganucodon*," says Behrensmeyer, 56. There are just a few partially reconstructed skeletons and assorted odd teeth, bones and skulls in collections around the world. So Staab sat down with a cup of coffee, an intimidating stack of scientific papers about Morgie and a yellow highlighting pen.

Then, he says, "I time traveled. I imagined myself right in the midst, sort of between the toes of the dinos." He envisioned a Morgie scurrying about on short legs, living cautiously in the shadow of the dinosaurs. He could see the little creature tunneling below ground with a long snout, safe from the predatory gaze of pterosaurs. With a mouthful of sharp teeth, Morgie likely dined on insects, chewing food rather than snapping jaws shut like reptiles. Gradually, the large-eyed, warmblooded creature, which probably sported a fur coat and which may have nursed its young, took shape in his mind.

Staab fashioned a skeleton from clay. Next, just as in a forensic reconstruction, he layered clay muscles over the bones, then added clay "skin" and sculpted it to look like fur. After Staab sent pictures of his Morgie off to the Smithsonian, Behrensmeyer asked him to make the head a bit bigger to reflect a large brain in relation to body size, one of the defining characteristics of mammals. She also recommended that Staab enlarge Morgie's eyes, because *Morganucodon* probably was nocturnal and needed highly sensitive eyes for effective hunting. And she asked him to add hair to the tail.

After a bit more back and forth, the clay model finally satisfied both artist and scientist. Staab, who now affectionately refers to Morgie as "our mom," made a cast of the model and created the bronze sculpture (left). She was placed on a pedestal with a view of many of her descendants scattered across the exhibition space.

Once the new hall opens this month, visitors will be able to reach out and touch their oldest ancestor.

—*MARJORIE MATHEWS*

The National Museum of Natural History's new mammal hall opens November 15 (see also "From the Secretary," p. 14).

WHO'S COUNTING?

57

YO-YOS ARE OWNED BY THE NATIONAL MUSEUM OF AMERICAN HISTORY, INCLUDING THE MEGASPINFAKTOR, DONATED IN JUNE BY RICK WYATT (ABOVE), WHO USED IT TO SET THE WORLD RECORD FOR "SLEEPING" (SPINNING A YO-YO AT THE BOTTOM OF ITS STRING): 13 MINUTES AND FIVE SECONDS. "HOW WE PLAY SAYS A LOT ABOUT WHO WE ARE AS A NATION," SAYS CURATOR DAVID SHAYT.

VISIT THE SMITHSONIAN For a free Associates' planning packet, call Smithsonian Information, 202-357-2700 or 202-357-1729 (TTY), 9 a.m.-5 p.m., Monday through Saturday, or e-mail info@si.edu. **INFORMATION CENTER:** Upon arrival, stop at the Smithsonian Information Center in the Castle (9 a.m.-5:30 p.m.). Members are invited to register for a behind-the-scenes tour and learn about membership benefits at the reception desk (9 a.m.-4 p.m.). Most museums are open daily, 10 a.m.-5:30 p.m., except December 25.

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Americans created Liberia as a homeland for freed slaves. But a quarter century of civil war over ethnic animosities has renewed questions about the U.S. role in the African nation

BY ALAN HUFFMAN

Turmoil and Transition in “Little America”

On a balmy January day in 2001, Maurice Pelham, a descendant of Mississippi slaves and a Liberian citizen, was looking for familiar faces in a stack of old photographs at the National Museum in Monrovia, the country's capital city. Even then, before the latest round of chaos and carnage that led to President Charles Taylor's resignation this past August, the museum was nearly empty, a decaying husk.

Looters over the years had stripped away all but a few artifacts. Among the surviving items were several testifying to the nation's unusual historic ties to the United States—an American flag, a mural featuring Abraham Lincoln and John F. Kennedy, and several photographs of old Liberian houses that closely resemble antebellum plantation manor houses, down to their tall-columned entryways.

Pelham's ancestors first settled in this region of West Africa in the 1840s, following a confluence of American political currents whose effects are still being felt in Africa and the United States today. For nearly five decades, starting in 1820, some 13,000 freed American slaves and their families colonized the region as part of a privately organized repatriation effort. Having given itself a name reflecting the settlers' liberation, Liberia declared itself an independent nation in 1847—Africa's first. But this experiment in nation building would take some surprising turns, the most ironic being the former slaves' attempts to subjugate the indigenous people.

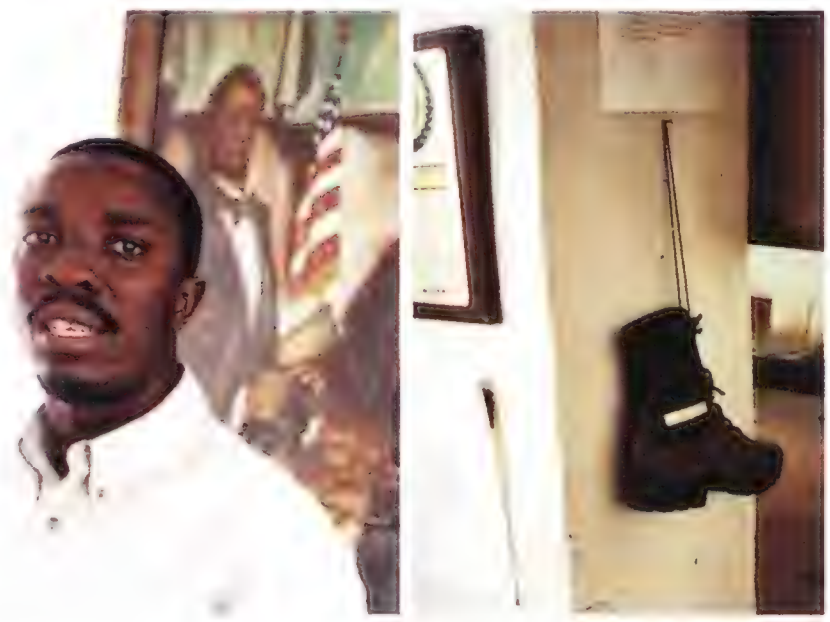
As was plainly evident in several photographs that Pelham was poring over that day in Monrovia, many of the original settlers, known as Americo-Liberians, assumed some of the ways of Southern plantation owners and slaveholders. Americo women are pictured wearing hoop skirts while the men sport long-tailed coats and top hats. Like Southern gentry, they set up plantations, joined the Masons and planted collard greens and okra. Pelham, who appeared to be in his late 40s, broke into a wide grin when he found a photograph from the 1890s of a formally dressed woman from the same Mississippi plantation as his ancestors. But his gladness faded as soon as he spotted another artifact—a boot that once belonged to Roosevelt Johnson, a tribal faction leader whose supporters committed numerous atrocities against citizens throughout the 1990s. Scowling, Pelham turned to the curator. "Why do you have the boot of Roosevelt Johnson?" he demanded.

For a long, uncomfortable moment, the two men stared at each other. Finally, I tried to defuse the tension. "It's part of history," I said.

"Exactly," the curator said, turning his back to us.

Pelham, motioning for me to follow, stalked out the door.

The freighted exchange was a telling sign of the tensions between Americo-Liberians, who dominated national affairs for 150 years despite making up less than 5 percent of the population (currently 3.3 million), and indigenous Liberians, who belong to some 16 ethnic groups. Since 1980, civil wars have killed perhaps a quarter of a million people and created a million or so refugees. This past summer, more than 1,000 civilians died from hunger, disease and wounds after a rebel force seized Monrovia and forced Taylor into exile in Nigeria. A new, transitional government led by Charles Gyude Bryant, a businessman and chairman of the Liberia Action Party, was scheduled to take over last month.



Clashes between Americo-Liberians like Maurice Pelham (left) and indigenous Africans like warlord Roosevelt Johnson (his boot, right, in the National Museum) have deep historic roots.

When Taylor and other African leaders called for U.S. troops to restore peace during the summer's siege, many Americans were puzzled—not only by the request but by the rather uncommon sight of Africans waving the Stars and Stripes. By mid-August, the United States—"Liberia's oldest friend," as the State Department says—sent advisors and 200 marines to Monrovia as part of a multinational force organized by the Economic Community of West African States and backed by the United Nations. Monrovia's request was only natural, considering the U.S. role in founding the nation and its support of previous regimes. "Here we have a country that was modeled after the United States, which was founded by freed American slaves, and they needed help and they called out

ALAN HUFFMAN of Bolton, Mississippi, is the author of Mississippi in Africa, *soon to be published by Gotham Books.*

to us," says Roger Davidson, a historian and Liberia expert at Coppin State College in Maryland. Debra Newman Ham, a specialist in African history at Morgan State University in Baltimore, agrees. "So many of the Liberians I know have been longing for help from the United States for over two decades," she says.

The recent crisis can be traced to the nation's origins, Davidson and other historians say. "The way the Americo-Liberians lived—building these grand houses for which they needed labor and servants, trying to live like the wealthy people back home, oppressing some of the indigenous people, whom they saw as heathens—that was enough, over the years, to cause this destabilization."

THE IDEA OF RELOCATING freed American blacks predated the American Revolution, but was first seriously proposed in 1800, following a thwarted Virginia slave uprising that resulted in the hanging of some 35 slaves. Virginia delegates called upon President Thomas Jefferson to purchase lands "where persons obnoxious to the laws or dangerous to the peace of society may be removed." Jefferson initially proposed a joint effort with Great Britain, which had already started a colony for former slaves in Freetown, Sierra Leone, but rising tensions that would eventually culminate with the War of 1812 stalled Jefferson's proposal. The idea was revived after the war, when Paul Cuffee, a free black sea captain, transported freed American slaves to Freetown.

In December 1816, a group including Francis Scott Key, Daniel Webster and Henry Clay convened to form the American Colonization Society (ACS). George Washington's nephew, Bushrod Washington, was the group's first president. Among the supporters were Andrew Jackson and James Monroe, who would serve as president of the United States from 1817 to 1825. (Monroe would reportedly call the colony "Little America," and Liberia's capital would be named after him.) Clay, the Kentucky statesman known as the Great Compromiser, supported the society for seemingly pragmatic reasons, saying that because of "unconquerable prejudice resulting from their color," freed slaves "never could amalgamate with the free whites of this country."

With its stated goal of creating an African-American homeland, the ACS seemed philanthropic in nature. Some members believed that black Americans would be more successful in Africa, while others sought to convert Africans to Christianity. Yet the ACS also served the anxieties of many slaveholders, who feared retaliatory uprisings and worried that blacks would gain economic and social clout if slavery were abolished. "Slaveholders ultimately dominated the colonization effort," says John Singler, a professor of linguistics at New York University, who has lived and worked in Liberia. (And, indeed, while some abolitionists favored colonization, others opposed it as just another form of discrimination.) Though many of the settlers would be free-born African-Americans, others were freed from slavery only on the condition that they emigrate.

From 1820 to 1867, the American Colonization Society sent some 13,000 freed slaves to Liberia, where settlers named the capital after U.S. president Monroe. Emigration to the West African nation (below, Liberia-bound Americans board the steamship *Horsa* in Savannah in 1895) continued for decades.

VIA RONALD REAGAN LIBRARY OF CONGRESS, BRIDGEMAN ART LIBRARY

The society—and other colonization groups—opened chapters in several states, including Louisiana, Maryland, Mississippi, New York, Ohio and Pennsylvania. In 1819, the U.S. government gave the ACS $100,000 to underwrite a settlement in Africa. West Africa was proposed as the logical destination. For one thing, it was nearest to America's East Coast. For another, most of the estimated 60 million Africans sold into slavery between 1503 and the mid-1800s had come from West Africa. Another reason, says Elwood Dunn, a political scientist at the University of the South in Tennessee and an aide to former Liberian president William R. Tolbert Jr., was the British foothold in neighboring Sierra Leone.

The colonization society's first chartered ship, the *Elizabeth,* set sail from New York in February 1820 with three ACS agents and more than 80 emigrants aboard. Their start was inauspicious. Within five months after their departure, all three ACS agents and 22 of the immigrants were dead of fever; the survivors were evacuated to Freetown. But the ACS organized more voyages and, sometimes holding tribal chiefs at gunpoint, bought large parcels of land.

The settlers found themselves in a region that was home to tribes speaking some 20 languages. Both the low-lying coast and the upland bush of the interior were sparsely populated, but, says Dunn, "These were not people encountering outsiders for the first time." In fact, he adds, some tribes had negotiated with slave traders and other European traders for centuries and "had gotten quite sophisticated in the ways of the West." For their part, the American settlers tended to regard the tribespeople as unlettered and inferior.

The settlers patterned the nation after the United States', forming a government with a bicameral legislature, a judicial system and, beginning in 1847 with the election of Joseph Jenkins Roberts, a president. The Liberian flag was red, white and blue with bars and a single star. The national motto, still in effect, is "The love of liberty brought us here" (a sentiment, of course, that affronted the native majority).

Typical of the pioneers were the ancestors of Charleston Bailey, a Monrovia resident in his 80s whose great-grandparents immigrated from Georgia to Liberia. The first Liberian Baileys cleared plantations from the bush and cultivated native crops as well as American staples, including rice, sweet potatoes, cassava, cabbage and eggplant. Bailey's grandfather was killed in settlers' early clashes with locals. "The tribes wanted settlers to go back to America, but the settlers conquered them and they surrendered," Bailey told me two years ago.

Though outnumbered, the settlers managed to dominate because they were well organized and backed by the American military. The mere presence of a U.S. ship offshore was often enough to defuse a potential conflict, says Dunn, adding, "American officials had set up the place and passed the power to settlers."

Americos abused their growing power, historians tend to agree, by denying indigenous people the right to vote and relegating them to subservient roles—field hands, house servants and, in some cases, forced laborers. In 1930, the League of Nations reported that the Liberian government was pressing thousands of tribesmen to work on coffee plantations on the Spanish-held island of Fernando Po (now Bioko), in the Gulf of Guinea, about 1,100 miles from Liberia. Liberian president Charles D.B. King, calling the league's accusation "malicious propaganda," resigned in December 1930, along with his vice president, Allen Yancy. In 1931, the league described Liberia as "a Republic of 12,000 citizens with 1,000,000 subjects." As Lester Walton, minister plenipotentiary at the U.S. Embassy in Monrovia, wrote at the time, "Forced labor, vicious exploitation of the natives by the [Liberian Army], unjust and excessive fines are some of the contributory factors to occasion resentment and dissatisfaction, impelling many natives to reluctantly settle in Sierra Leone." Liberia's new president, Edwin Barclay, largely resisted the League of Nations' recommended reforms, but, responding in part to pressure from the United States, which refused to recognize his administration until 1935, Barclay did oversee a ban on forced labor.

Meanwhile, industry was moving into Liberia, in some cases adding to tensions between settlers and indigenous people. In 1926, the Firestone Tire & Rubber Company negotiated a 99-year lease on one million acres of Liberian land

Advanced education (below, Liberia College faculty and students, c. 1900) was reserved for settlers, though tribal groups (bottom, Kru women) constituted the great majority.

BETTMANN/CORBIS; LIBRARY OF CONGRESS

for rubber plantations at six cents per acre. Firestone built roads, schools and hospitals and extended telephone lines. Still, the company couldn't shake the criticism that it shortshrifted workers' wages.

Singler, a critic of the company's activities in Liberia, says, "Over the years, Firestone developed a tradition of taking from Liberia, but virtually no tradition of giving to the country, least of all to the thousands of [rubber] tappers whose labor it used." An attorney who once represented Firestone in Liberia, Gerald Padmore, a Liberian and a former deputy finance minister under Tolbert, disputes that the nation got nothing out of the relationship. "The initial deal in 1926 was highly favorable to Firestone, but the Firestone investment was useful for both Liberia and the United States," he says. In any event, rubber became the nation's main cash crop, and Liberia became one of the world's leading suppliers of the material.

In 1942, the U.S. military built Roberts International Airport in Monrovia to serve the Allies' North Africa campaign and, in 1944, began constructing a shipping center, Freeport, also in Monrovia. Franklin Roosevelt's visit to Liberia in 1943 confirmed, for many Liberians, the nation's close ties to the United States. About 5,000 U.S. troops were stationed in Liberia during World War II.

After the war, Liberia's rubber industry boomed, thanks in part to new agreements with Firestone and investment by the United States, which gave millions to agricultural development and construction of roads, hospitals and municipal buildings. By the early 1970s, Liberia was also the world's 11th largest producer of iron ore. Liberia, says Newman Ham, was trying to make itself "into a modern nation, able to compete on some level with the world economy."

But the source of revenue for which Liberia is perhaps best known today is registering foreign ships, a practice that began after World War II. Flying a Liberian "flag of convenience" assures shippers low fees and taxes and minimal regulation. Liberia claims the world's second largest commercial fleet, behind Panama, with some 2,000 registered ships generating $18 million annually. But the program has prompted controversy. In 2000, the U.N. accused Taylor of using registry revenue to facilitate the flow of illegal arms to guerrillas in Sierra Leone. The International Transport Workers' Federation has called upon shippers to register fleets elsewhere.

LIBERIA WOULD ENDURE its own version of African nationalism. While other African nations sought to extricate themselves from colonial rulers, ethnic Liberians sought greater control of their affairs. In 1944, President William Tubman, who is generally considered to have been progressive, opened the legislature to tribal representatives for the first time. In 1951, women—though only Americo women—voted in their first presidential election. Tubman's Unification Policy, claims Padmore, "was a genuine effort to open the country up so that the leadership of the country reflected the diversity of the people." William Tolbert, a Baptist minister who assumed the presidency upon Tubman's death in 1971, went further and included tribal leaders in local and national governments. But indigenous people still didn't have a full say. Tolbert's liberalization was opposed by the settler-run True Whig Party, then Liberia's only political party, which had ruled virtually unchallenged since 1869. Most party leaders still viewed the indigenous population as untutored masses to be brought gradually into line. "Even though things were opening up, they were still far from reconciliation," says Newman Ham.

The conflict exploded into the open in April 1979, after Tolbert's administration proposed an increase in the price of rice. When protesters demonstrated, Tolbert called out the army and the police, who killed 41 people and injured about 400. Rioting and anarchy ensued in Monrovia, part of what Newman Ham describes as an outbreak of "rebellion and overthrow." In April 1980, a master sergeant in the Liberian Army, Samuel K. Doe, a member of the Krahn ethnic group, led a small band into the executive mansion and killed Tolbert in his bed. They rounded up 13 top Americo leaders and executed them on a Monrovia beach. Doe, not yet 30, thus ended 133 years of Americo-Liberian political domination. In October 1985, he emerged the winner of a special election for president, which many considered fraudulent.

Many Americo-Liberians built plantation-style residences (below) like those they had known in the United States. Indigenous peoples' homes (bottom) were far more modest.

LIBRARY OF CONGRESS

Conflicted History

December 1816
American Colonization Society (ACS) founded in Washington, D.C.

February 1820
The first colonist ship, the *Elizabeth*, sails to West Africa.

February 1824
The ACS names the colony Liberia, for liberty, and its capital Monrovia, after U.S. president James Monroe.

ROBERTS

July 1847
Liberia becomes Africa's first republic.

January 1848
Joseph Jenkins Roberts, Liberia's first elected president, is inaugurated into office.

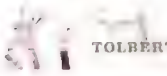
June 1862
The United States formally recognizes Liberia's independence.

1869
The True Whig Party wins first presidential election. It becomes the dominant political party until 1980.

FIRESTONE WORKERS

1930
A League of Nations report exposes forced-labor practices in Liberia.

1926
Firestone Tire & Rubber Company opens a rubber plantation on land granted by the Liberian government.


TOLBERT

May 1951
Women and indigenous property owners vote for the first time in a presidential election.

April 1980
President William R. Tolbert Jr. is assassinated in a military coup led by an indigenous Liberian, Sgt. Samuel K. Doe. Doe rules as dictator.

DOE

January 1986
Doe is installed as the first president of the second republic after winning controversial elections. Ethnic tensions rise.

December 1989
Charles Taylor invades Liberia from Côte d'Ivoire and topples the Doe-led government. Six-year civil war results.

September 1990
Forces led by Prince Johnson, a former Taylor supporter, capture and kill Doe.

July 1997
Charles Taylor wins national elections by a landslide.

TAYLOR

June 2003
Taylor is indicted by a U.N.-backed war crimes tribunal for his alleged role aiding rebels during Sierra Leone's civil war and trading arms for diamonds. Peace talks in Ghana begin. Rebel forces approach Monrovia. Fighting continues despite a ceasefire agreement.

July 21, 2003
Fighting escalates in Monrovia. The U.S. Embassy is under siege, and 41 marines rescue dozens of U.S. citizens.

US MARINES

August 2003
Charles Taylor leaves Liberia August 11 after handing power to vice president Moses Blah. 200 more U.S. Marines arrive August 14. Interim government, rebels sign peace accord in Ghana.

October 2003
Monrovia businessman Charles Gyude Bryant is scheduled to be sworn in as chairman in an interim administration.

BRYANT

Dunn, who had functioned in Tolbert's cabinet and had been out of the country at the time of the coup, returned to Liberia hoping the new government would bring about reforms. "It became clear in a few months that this wasn't going to happen," Dunn recalls. Instead, Doe turned into a ruthless dictator. "Far from seeking to right the wrongs, it quickly turned into a revolution of entitlement," says Joseph Saye Guannu, a historian at the University of Liberia and a former ambassador to the United States. "Power was there to be personally enjoyed. Soldiers began to run around in Mercedes Benz cars." Thousands of Americos, including Dunn, fled the country, with many ending up in the United States.

To the bewilderment of the settler community, the U.S. government provided some $500 million to the Doe administration from 1981 to 1985. Chester Crocker, assistant secretary of state for African affairs under Reagan, says today that the aid had been promised by the Carter administration and that Reagan officials simply tried to make the best of a bad situation. "The United States had an obligation to Liberia," Crocker says. "It had vested intelligence and commercial interests and an infrastructure there, and cutting off aid could lead to regional destabilization and increasing Soviet and Libyan involvement."

Dunn, too, suggests that the aid was part of a larger U.S. effort to prevent Soviet influence, recalling that the USSR had an embassy in Monrovia, and Liberia had made overtures to Castro's Cuba. "This was in the midst of the cold war," Dunn adds. "The United States was concerned that if it didn't support this fledgling government, the country could veer to the left." But Doe's well-financed military could not staunch growing public dissatisfaction with his regime. In 1985, a former ally, Thomas Quiwonkpa, mounted an unsuccessful coup and was subsequently killed. Then, on December 24, 1989, Charles Taylor, Doe's former procurement chief and the leader of the National Patriotic Front of Liberia, launched an assault from Côte d'Ivoire.

Within six months, Taylor had gained control of much of the country, except Monrovia, where the Economic Community of West African States intervened and prevented the capture of the city. In September 1990, Doe was executed by guerrilla forces loyal to warlord Prince Johnson, who had split with Taylor. West African peacekeeping forces established an interim government in Monrovia, but Taylor's rebellion devolved into ethnic conflicts among tribal factions. (Intertribal strife, in fact, would play an increasingly large role in destabilizing the nation.) Over the next six years, an estimated 200,000 Liberians, most of them descendants of indigenous groups, died of malnutrition, diseases, injuries or wounds stemming from the civil war. Hundreds of peacekeepers lost their lives. Dozens of conferences were held in an effort to impose peace. In 1997, there were national elections, monitored by a group representing West African nations and other observers. By then, Liberians, weary of the fighting, feared that Taylor would make the country ungovernable if he lost. He won in a landslide.

Thousands of Liberians (such as this unidentified girl in Monrovia) were displaced by the heavy fighting that forced President Charles Taylor into exile in Nigeria in August. That same month, the United States sent advisors and 200 marines to Monrovia as part of a multinational peacekeeping force.

"Unfortunately, once Taylor found power he began to think like Doe," Dunn says. While most Liberians suffered under extreme poverty—the average annual income has been estimated to be less than $200, and national unemployment has hovered above 70 percent, the world's highest rate—Taylor grew wealthy exploiting Liberia's gold, diamonds and timber. He also bought arms, some of which he used to foment rebellions in neighboring countries. In 2003, a U.N. tribunal indicted Taylor for alleged war crimes committed in support of rebel forces in Sierra Leone. Meanwhile, most Liberians had neither running water nor electricity. Most schools were closed. There was no garbage pickup and no sewage system. Those who had jobs were seldom paid. Hundreds of thousands of Liberians sought refuge in Ghana and other West African nations.

One of Taylor's rivals was a rebel group calling itself Movement for Democracy in Liberia. In the summer of 2003, it succeeded in ousting government forces from the city of Buchanan, in southeastern Liberia. But it was another rebel group, Liberians United for Reconciliation and Democracy, that seized the capital and drove Taylor from the country.

"The general consensus is that this is a failed state," Jacques Paul Klein, the top U.N. representative in Liberia, told the *Washington Post* in September. "Now we have to rebuild the state," he went on, adding, the "situation will get worse before it gets better." A U.N. mission of up to 15,000 peacekeepers was scheduled to reach Liberia in October.

In early October, U.S. Marines stationed in Monrovia pulled out, while some troops remained in Senegal on emergency standby, said a Department of Defense spokesman, Navy Lt. Daniel Hetlage. He added that the U.S. military expects to send an as-yet-undecided number of troops to Liberia to support the U.N.'s peace mission. At the same time, the U.S. State Department projects that $125 million to $165 million in aid will be sent to the U.N.'s Liberia mission over the next year, says agency spokesman Steve Pike. Meanwhile, thousands of Liberians are reportedly hiding in the bush, with scant food, water, shelter and medicine.

SINGLER, THE NYU LINGUIST, takes the long view, and says if Liberia is viewed as a failure, as the U.N.'s Klein suggested, the United States bears some responsibility, because it "basically dumped people there without the tools they needed, so how could they succeed?"

Maurice Pelham, who had stormed out of the museum in Liberia at the mere sight of a warlord's boot, says that despite the past two decades of strife, Liberians have shown that they can prevail against historical odds. "Sometimes we get sick of being here ourselves," he told me over lunch at a Monrovia café two years ago. "But we feel we have an obligation. A responsibility."

His family, he said, "left America as slaves, [believing] we needed to do something with ourselves in Africa. They had to do something on their own. We still consider ourselves Liberians, but we know where we come from." ○

Seeing Sylvia Plath

A new movie rekindles curiosity about the poet's life, love and suicide at age 30 ~ BY ROBERT F. HOWE

THE PARTY WAS IN FULL SWING. As many as 100 guests, most of them students, crowded the second-floor hall of the Women's Union at England's University of Cambridge the night of February 25, 1956. A jazz band played, some couples swirling to the combo's rhythms while other revelers mingled, sipped brandy, flirted—and quoted verse.

A half-dozen friends had just published the first, and what was fated to become the last, issue of their literary magazine, *St. Botolph's Review*, named after the rectory where some of the contributors lodged. Co-publisher Lucas Myers, an American then studying in England, was dancing with his date, Valerie, when a young American woman in red shoes and wearing a lot of lipstick approached and introduced herself as Sylvia Plath. "My girlfriend retreated, and Sylvia began to quote some of my poems, which had appeared in the review," says Myers, 72, a retired civil servant who now lives in Sewanee, Tennessee. "I was surprised by the directness of her approach, and flattered but quizzical about her reciting my poems."

Then, Myers says, Plath asked which of the other young poets was Ted Hughes; she said she admired his work. In her journal, Plath recalled the moment differently: "That big, dark, hunky boy . . . whose name I had asked the minute I had come into the room . . . came over and was looking hard in my eyes and it was Ted Hughes." Either way, says Myers, "This party was full of noise, music, people drinking. It wasn't a tea party. And it had *consequences*."

Two lives and perhaps the course of contemporary poetry were forever altered. Plath recounted in her journals that she and Hughes slid away into a remote alcove where "he kissed me bang smash on the mouth," then ripped off her red hair band and silver earrings, declaring, "Hah, I shall keep [these]." When he moved his lips to her neck, she wrote, she bit him, hard, on the cheek, drawing blood.

"She was so complicated," says actor Gwyneth Paltrow (above, left), who plays poet Sylvia Plath (above, right) in a new film. Plath (opposite, with Ted Hughes after their June 1956 honeymoon) was torn between her roles as wife, mother and writer.

Shortly afterward, an overwrought Plath wrote her mother, Aurelia, describing Hughes as a brilliant poet and a "large, hulking, healthy Adam, half French half Irish, with a voice like the thunder of God." But having fallen so completely, she also felt destined for "great hurt."

Just four months after the party, Hughes and Plath were wed, bringing together what would become two of the most influential forces in 20th-century English-language poetry. In homage to such collected works as *The Hawk in the Rain* and *Crow*, books in which Hughes characteristically explored the mythic powers of nature, he was named poet laureate of England in 1984. In her best book of poems, the posthumous *Ariel*, and her one novel, *The Bell Jar* (1963),

Plath felt controlled by her mother, Aurelia (left, holding granddaughter Frieda in 1962), and abandoned by her father, Otto (right, at 39), who died when she was 8.

Plath broke through barriers of traditional form and symbolism, and unleashed personal demons with a chilling candor rarely seen before or since. By doing inner battle with the expectations and limitations of her times and her gender ("My tragedy is to have been born a woman," she once wrote) and by taking her own life in 1963 at age 30, Plath also became a symbol of a changing time when women's voices would finally and truly be heard.

Even today, a full 40 years after Plath committed suicide, students, writers, scholars and biographers remain fascinated with Plath and Hughes. *Her Husband*, a book by Diane Wood Middlebrook that uses material from the Hughes archives at Emory University to explore their marriage, is due out this fall, as is his *Collected Poems*. And a movie, *Sylvia*, starring Gwyneth Paltrow as Plath and British actor Daniel Craig as Hughes and directed by New Zealand's Christine Jeffs, premièred last month. Just as Nicole Kidman's 2002 film *The Hours* boosted Virginia Woolf's *Mrs. Dalloway* onto the best-seller list almost 80 years after its first printing, *Sylvia* will likely spark renewed curiosity in—and debate about—the work and fates of Plath and Hughes.

The film draws upon *Birthday Letters*, a book of poems published in 1998 by Hughes, who died of cancer at age 68 just months after its publication. Hughes was terribly private and often defensive about his relationship with Plath. It is widely assumed that only because he knew his end was near did he allow publication of the poems, which exhibit an introspective honesty more commonly associated with Plath. In them, the poet speaks directly to his late wife. In "St. Botolph's," he recalls their meeting:

I see you there, clearer, more real
Than in any of the years in its shadow—
As if I saw you that once, then never again.

ROBERT F. HOWE is a freelance writer in Occidental, California.

"I had always just thought them unpublishably raw and unguarded, simply too vulnerable," Hughes once wrote to a colleague. But Al Alvarez, a poet and friend to both Plath and Hughes, saw through to the heart of the matter, explaining that Hughes may have lost Plath when she died, but he still had a powerful connection to her. "They were love poems," Alvarez says. "Thirty years later, it was still happening—the 'face in the window' hadn't gone away." Indeed, as much as the story of Hughes and Plath is one of surpassing artistry, it is also one of the 20th century's most searing love stories.

BORN IN 1930, Hughes grew up in England's rural West Yorkshire, the youngest of three children of Edith and William Hughes. Hughes' father was a carpenter and World War I veteran who had witnessed the wholesale slaughter of his comrades in battle; his mother was a homemaker. Hughes would later recall the landscape of his youth as a place where its residents lived in a constant state of mourning over the war to end all wars and where "disaster seems to hang around in the air." "This was where the division of body and soul, for me, began," he wrote in a 1963 magazine piece.

His family later moved to Mexborough, a small town in South Yorkshire, where they purchased a tobacco and newspaper shop. The son began writing in his teens; he was a tireless reader of Shakespeare, Blake, Lawrence and other British literary icons, as well as a devoted hunter and fisherman. He did well enough in school to qualify for Cambridge and, after a required two-year stint in the military, as a radio technician, he enrolled with the idea that he would study literature. As it turned out, he loathed deconstructing works he had no interest in. At least a recreational believer in shamans and dark forces, he claimed to have had a dream one night in which a burned and blackened fox materialized, placed a charred paw on an essay Hughes had written and said, "Stop this—you are destroying us." He immediately switched to anthropology, learning the mythology of such creatures as the crow, owl and snake, which would later populate his works. His first poem, "The Little Boys and the Seasons," was published just after he graduated in 1954 in the literary magazine *Granta*. In the year and a half before he met Plath, he worked on his writing and took odd jobs, even as a rose gardener and zookeeper, to support his very modest lifestyle.

Sylvia Plath and her younger brother Warren were raised in the Massachusetts coastal town of Winthrop. Her strong-willed father, Otto Emil Plath, had come to the United States from Prussia at the age of 16 and had earned a doctorate in entomology from Harvard. He was particularly dedicated to the study of bees, an interest his daughter would later share and images of which would surface prominently in poems

collected in *Ariel*. Otto met Plath's mother, the daughter of Austrian immigrants, at Boston University, where he taught German. Aurelia had great ambitions for herself as an educator, but set them aside to play the dutiful wife and to raise her children.

Plath's perception of Aurelia as controlling and demanding is well known to those who have read the largely autobiographical *Bell Jar*. As is her father's death at age 55, when Plath was 8. Otto, who suffered from diabetes, reviled doctors so thoroughly that he refused treatment until he banged his toe on a dresser and his leg became infected; although the leg was amputated, it was too late. Plath was distraught over his death. Caught between an exacting mother and a feeling of abandonment by a father she adored, she set out on a consuming quest for perfection—as daughter, student, lover and wife. And as a writer.

The impossibility of her mission may have contributed to her first suicide attempt. A model student at Smith College, she was selected as a guest editor at *Mademoiselle* magazine in New York City, where she worked during the summer after her junior year, in 1953. She was elated, having been obsessed with writing since her first published verse about crickets and fireflies appeared in the Boston *Herald* when she was 8 years old. Even while in high school, she had gotten small pieces into such prominent publications as *Seventeen* and the *Christian Science Monitor*. But rather than being exhilarated by Manhattan, she claimed to have been enervated. "I felt very still and very empty, the way the eye of a tornado must feel, moving dully along in the middle of the surrounding hullabaloo," wrote her fictionalized counterpart Esther Greenwood in *The Bell Jar*. Shortly after Plath returned home, she collapsed from depression. She was briefly institutionalized and given electroshock therapy. Later, she crawled into a dark, dirty space underneath her mother's house, where she swallowed pills in an effort to kill herself.

She recovered sufficiently to graduate with honors in English and win a Fulbright scholarship to Cambridge to study literature. When she set out in the fall of 1955 for England, she hoped not only to polish her writing and perhaps begin work on a PhD, but also to find a man. *The* man. "My God, I'd love to cook and make a house, and surge force into a man's dreams, and write," she confided in her journals not long after her arrival in England.

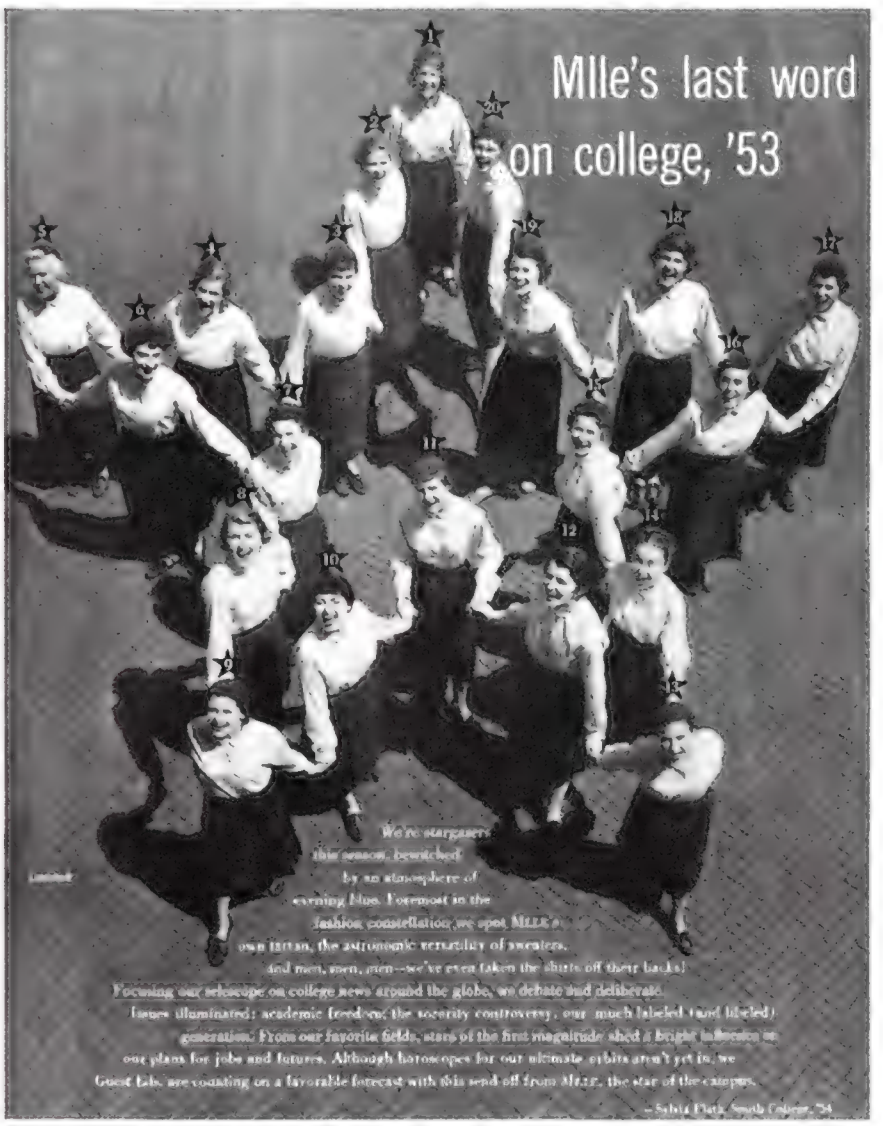
A few weeks later, she bought a just-printed copy of *St. Botolph's Review*. In that slim volume, she discovered some particularly potent poems by a writer named Ted Hughes:

. . . he meant to stand naked
Awake in the pitch dark where the animal runs,
Where the insects couple as they murder each other.

Hughes, she thought, might be worthy—or so he seemed on paper. When she saw him at the party, she felt she had found her mate. With his manly brow, angular jaw and unruly hair, Hughes cut a handsome figure—as he well understood. "He was a predator, compulsive. He liked women, let's put it that way," says Alvarez. "Women tended to throw themselves at him. He had that dark, handsome, Jack Palance gunfighter air about him." Alvarez claims to have known a woman, a psychoanalyst, who was so overcome by the sight of Hughes that she excused herself to the bathroom and vomited.

Perhaps the bite to Hughes' cheek was Plath's equivalent reflex. After the party, Hughes returned to London for a job as a script reader for a film company. Plath was disappointed, wishing he would visit her before she set off on a spring break trip to Paris. Hughes did, though at first she didn't know it. In the dead of night, Hughes and Myers sneaked behind Plath's residence, tossed mud at what they thought was her window and called out "Shirley" (mistaking Plath's name). When she found out what happened, Plath was horrified—sort of. On March 23, the night before she departed for the Continent, Plath turned up at Hughes' flat in London. She didn't leave until morning.

From the outset, her emotions ran high—perhaps impossibly high. With friends, Plath shared her concerns that Hughes was a womanizer. But she was determined to tame and possess him, even making a list in her journal of things she should or shouldn't do to keep him: ". . . never accuse or nag—let him run, reap, rip—and glory in the temporary sun of his ruthless force." Hughes may not have felt quite the same level of commitment. Still, says Elaine Feinstein, author


Mlle's last word
on college, '53
We're stargazers
this season, bewitched
by an atmosphere of
evening blue. Foremost in the
fashion constellation we spot MLLE's
own ZIRTAN, the astronomic sensation of sweaters.
And men, men, men—we've even taken the shirts off their backs!
Focusing our telescope on college news around the globe, we debate and deliberate
issues illuminated; academic freedom; the security controversy; our much labeled (and libeled)
generation. From our favorite fields, stars of the first magnitude shed a bright influence on
our plans for jobs and futures. Although horoscopes for our ultimate orbits aren't yet in, we
Guest Eds. are counting on a favorable forecast with this send-off from MLLE, the star of the campus.
—Sylvia Plath, Smith College, '54

In June 1953, Plath (above, at the top of the star) was a guest editor at *Mademoiselle*—"one of the smartest and funniest" of the group, said a colleague. That August, she attempted suicide.

LANDSHOH MADMOISELLE CONDÉ NAST PUBLICATIONS INC

From Lowell, she learned she could give voice to her darkest inner fears. By reading Sexton, she was emboldened to embrace quintessentially female themes.

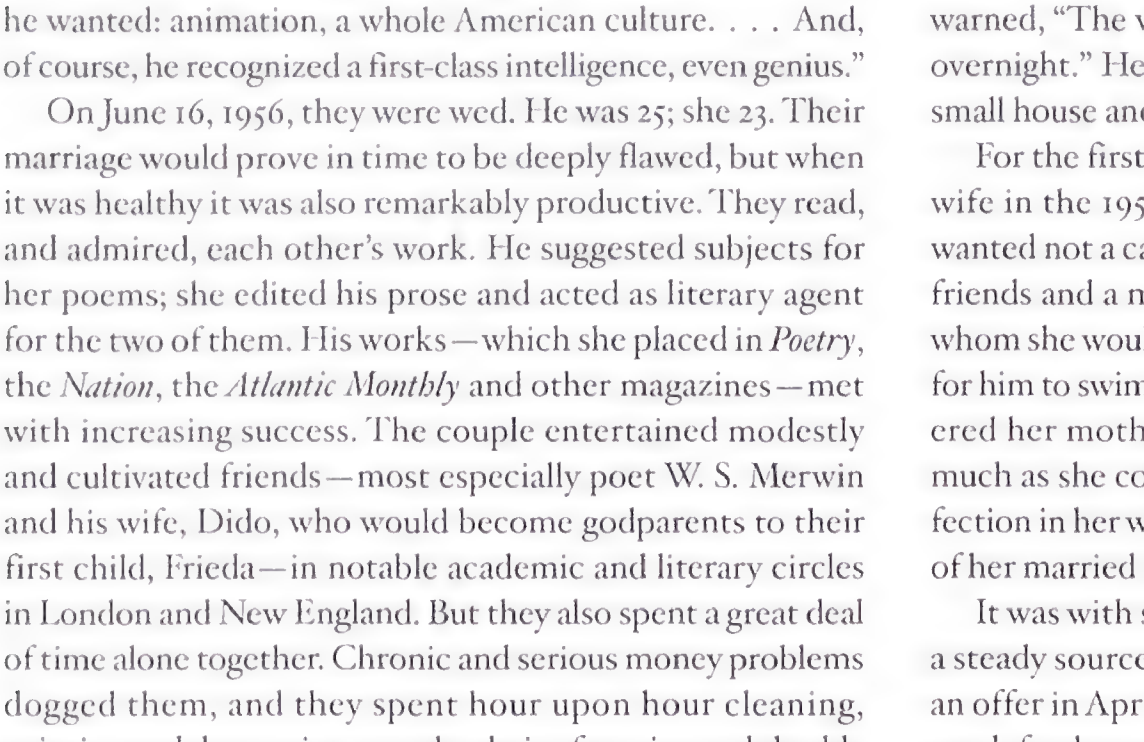
of *Ted Hughes: The Life of a Poet*, in Plath "he saw many things he wanted: animation, a whole American culture. . . . And, of course, he recognized a first-class intelligence, even genius."

On June 16, 1956, they were wed. He was 25; she 23. Their marriage would prove in time to be deeply flawed, but when it was healthy it was also remarkably productive. They read, and admired, each other's work. He suggested subjects for her poems; she edited his prose and acted as literary agent for the two of them. His works—which she placed in *Poetry*, the *Nation*, the *Atlantic Monthly* and other magazines—met with increasing success. The couple entertained modestly and cultivated friends—most especially poet W. S. Merwin and his wife, Dido, who would become godparents to their first child, Frieda—in notable academic and literary circles in London and New England. But they also spent a great deal of time alone together. Chronic and serious money problems dogged them, and they spent hour upon hour cleaning, painting and decorating to make their often tiny and shoddy accommodations homey. And though Hughes would be criticized for relegating the greater share of household duties to Plath, he was, says *Her Husband* author Diane Wood Middlebrook, relatively egalitarian for the era: "He recognized that the demands of her writing were exactly the same as the demands of his, and the two of them worked out a way of life that afforded them both time for their work and, later, for their children."

But it was as early as their honeymoon in Spain that Plath first voiced second thoughts. While one journal entry boasted that she and Hughes were "fantastically matched," requiring the identical amount of sleep and sharing a kind of "anti-social" preference for their own company, another entry warned, "The world has grown crooked and sour as a lemon overnight." Her gloom apparently arose when they rented a small house and Hughes left Plath to do most of the chores.

For the first time, Plath confronted what it meant to be a wife in the 1950s. In her journal, she had written that she wanted not a career but a life of "babies and bed and brilliant friends and a magnificent stimulating home," plus a man to whom she would give "this colossal reservoir of faith and love for him to swim in daily." She embraced convention and showered her mother with letters about her happiness. But as much as she coveted the societal norm, she also sought perfection in her writing. It was a tension that would define most of her married life; there was simply not often time for both.

It was with some relief that Plath, who quietly longed for a steady source of income and a tidy, stylish home, received an offer in April 1957 to return to Smith the following fall to teach freshman English. She had often considered teaching and, given their educational backgrounds, Plath and Hughes could easily have fashioned stable, well-paying careers to fund their writing. That summer they sailed for America, where Aurelia greeted the young couple with a welcome home party and the gift of a rented cottage on Cape Cod for their summer break. But what was intended to be an idyllic time of rejuvenation was completely undone by a pregnancy scare that, in retrospect, highlighted Plath's priorities. In her ideal world there were babies galore, but in reality, they were hard-pressed to make a living even with Hughes' increasing success. She now saw pregnancy as a debilitating blight: ". . . clang, clang, clang, one door after another banged shut with the overhanging terror which, I now know, would end me, probably Ted, and our writing and our possible impregnable togetherness." Then, happily, she got her period.


157
January 10, 1953: Look at that ugly dead mask here and do not forget it. It is a chalk mask with dead dry poison behind it, like the death angel. It is what I was this fall, and what I never want to be again. The pouting disconsolate mouth, the flat, bored, numb, expressionless eyes: symptoms of the foul decay within. Eddie wrote me after my last honest letter saying I had better go to get psychiatric treatment to root out the sources of my terrible problems. I smile, now, thinking: we all like to think we are

Typically self-critical, Plath's journal entry continued, ". . . important enough to need psychiatrists. But all I need is sleep, a constructive attitude, and a little good luck."

Teaching, perhaps predictably, was a disaster. Plath's crystalline ideal of academia was quickly blemished by petty squabbles among professors, a crushing workload and her own characteristic sense that she was not as good a teacher as she should be. She barely managed to complete the first year of her two-year commitment when she resigned. Wanting to celebrate, she asked Hughes to join her on campus on her last day. He was late. Searching for him, she spied him coming up a road wearing "a broad, intense smile, eyes [looking] into the uplifted doe eyes of a strange girl with brown-

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CRYSTAL CRUISES

In August 1961, Plath and Hughes bought an old manor house in Devon, not far from London. Despite the space, the fruit trees and the gardens, Plath often felt suffocated. And it was while at Devon that Hughes began an affair with Assia Wevill (right).

ish hair, a large lipsticked grin, and bare thick legs in khaki Bermuda shorts." On seeing Plath, the girl fled. Plath was blind with rage, and no explanation could calm her. While the girl was a student of Hughes' and the encounter may have been by chance, Plath felt that Hughes had betrayed her trust and made a mockery of her sacrifices.

Late that same year, 1958, the couple moved to Boston and, at his urging, attempted to live solely off their writing. But she could not muffle the inner voice that insisted they needed a steady paycheck and so finally took a part-time job as a receptionist in the psychiatric clinic at Massachusetts General Hospital—the same clinic where she had been a patient in 1953. By the end of 1958, she had resumed therapy, wrestling mostly with unresolved issues about her parents.

The next year marked a turning point for Plath the writer as well as for Plath the mature woman. She sat in on a workshop at Boston University with poet Robert Lowell, where she befriended Anne Sexton, a suburban housewife who successfully celebrated in poetry a woman's experience. From Lowell, whose book of poems *Life Studies* persuaded her that it was acceptable to write about one's mental illness, Plath learned she could give voice to her darkest inner fears. And by reading Sexton's work and becoming her friend, Plath was emboldened to embrace such quintessentially female themes as motherhood, a subject rarely handled in poetry. Later in the year, on a cross-country vacation, Plath became pregnant. This time she felt ready.

Weary of America, the couple returned to London, arriving in January 1960. They found a grim little flat near Regent's Park, which Plath transformed into a passing semblance of American-style comfort. Shortly afterward, she submitted a collection of poetry to British publisher William Heinemann Ltd. and was rewarded in just a week with a contract for her first book, *Colossus and Other Poems*. She was elated. And having endured a pregnancy that had thoroughly drained her strength and spirits, a fact she hid from even her closest friends, Plath gave birth April 1 to her first child, Frieda. "I have never been so happy in my life," Plath told her mother.

To her many roles, she now added the part of the perfect mother. Hughes helped with cleaning, shopping and child care, but most of the domestic chores still fell to Plath, who weathered cycles of exhaustion, illness and depression. "The baby's feedings and keeping the house clean, cooking, and taking care of Ted's voluminous mail, plus my own, have driven me so I care only for carving out hours where I can start on my own writing," she wrote ten weeks after childbirth.

In early 1961, strained by the demands of motherhood and chronic money woes, Plath once again revealed a streak of scorching jealousy. Hughes had met with a woman at the BBC to discuss producing children's programming. Plath had spoken to the woman on the phone and mistakenly assumed that she was quite young. When Hughes returned to the flat, he found that Plath had burned drafts of his latest work. For a writer, it was the ultimate violation—as Plath surely knew. Shortly afterward, she miscarried what would have been her second child.

Yet in the midst of these personal crises, Plath began to produce poems of greater emotional depth. She also began mining the woman's perspective in ways that she previously had not, a perspective that would grow more dominant as her work evolved. In "Morning Song," for instance, she celebrated new motherhood:

The midwife slapped your footsoles, and your bald cry
Took its place among the elements.

She also made real progress on *The Bell Jar*. Writing the longer prose work gave her a comforting sense of continuity. She and Hughes took turns using a small study lent them by W. S. Merwin, Plath taking the morning hours and Hughes the afternoon. As cooperative an arrangement as it was, it was hardly ideal, and in the summer of 1961, wanting more privacy, Hughes and Plath sublet their apartment to David Wevill, a young Canadian poet, and his wife, Assia, and bought their first home, what might generously be called a fixer-upper, in Devon, about 200 miles from London. Plath particularly loved the house's yard, where she gardened and established a bee colony, and the couple luxuriated in a serenity they were certain would also foster creativity.

But the pastoral peace was soon broken. After the birth of their son, Nicholas, on January 17, 1962, Plath was felled by postpartum depression. And the worst was yet to come.

That spring, having recently completed a draft of *The Bell*

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She began to churn out sharp-edged, brutally honest, fiery poems. It was as if she had emerged from the chrysalis of her anguish and found purpose, hope and her truest voice.

Jar, Plath welcomed David and Assia Wevill to Devon for a visit. Clouds quickly gathered. Plath thought she saw something in the way Hughes spoke to Assia that betrayed his interest. Months later, on July 9, while Aurelia was visiting, Plath's darkest suspicions were confirmed when she intercepted a phone call for Hughes from Assia, who attempted to disguise her voice. According to Linda Wagner-Martin's *Sylvia Plath: A Biography,* Plath ripped the phone wires out of the wall, gathered up baby Nicholas (leaving Frieda with Aurelia) and drove to a friend's home, where she spent the night. The following day she returned to Devon, collected a stack of Hughes' work, plus the manuscript of what was to be her second novel—an adoring paean to her husband—took the papers outside and set them ablaze.

The next several months were a mix of success and tension. *Colossus* had been released in America (though scarcely reviewed then, it is now praised for its craftsmanship), *The Bell Jar* had been accepted for publication and several of Plath's poems were appearing in prominent literary reviews. To those who didn't know them, Plath and Hughes presented a picture of unity. In actuality, Plath was feeling that she must have been somehow flawed for Hughes to make off with another woman. She also resented that her hard work to help him gain fame had made him only that much more alluring. The split finally came October 11—he moved out.

Plath was disconsolate. Her role as ideal wife had been shattered. Increasingly desperate, she turned to her source of greatest solace: her writing. In the early fall, she began a new novel, one that she would later tell Alvarez would far surpass *The Bell Jar*. She began to churn out poems—sharp-edged, brutally honest, fiery works—some of which were published in the *New Yorker* and the *Observer* newspaper. It was as if, creatively at least, she had emerged from the chrysalis of her anguish and found purpose, hope and her truest voice. "She wanted an idyllic life—books and babies and beef stews—she wanted to have it all as a woman and as an artist," says Kate Moses, author of *Wintering*, a 2003 fictionalized account of Plath's last year or so. "But artistically she needed to be standing more at the edge of an abyss in order to work. So she may have needed a huge emotional shakedown to get to another level artistically. And the shakedown was the end of her marriage." In "Event," Plath refers to her marriage at about the time that Hughes left with Assia:

A groove of old faults, deep and bitter.
Love cannot come here.

Some feel that the poems written during this time, examining man's cruelty, loss and betrayal, trace an emotional descent to an inevitable suicide. But at the same time, there are signs that Plath is fully prepared to battle the fates. In a letter to her mother, she asks for financial help, but conveys an unusually acute confidence and an almost eager outlook: "I am a genius of a writer; I have it in me. I am writing the best poems of my life. . . . "

To be nearer her friends and the literary sources she hoped would buoy her, Plath returned to London and rented a flat (oddly, around the corner from Assia) just in time for the worst English winter in well over a century. The apartment lost power and water routinely, and she and her children succumbed to a series of fevers. Hughes, who was living nearby, dropped in regularly, often bringing small gifts, but his visits gave Plath little comfort. Alvarez visited her on Christmas Eve and found the usually orderly mother unkempt and the apartment spare and cold. He sensed that she was in trouble, but failed to act. "I could have helped much more than I did," says Alvarez, who once attempted suicide himself. "I was one of the people she could talk to, and I kind of backed out at the last minute."

Eight years later Alvarez would enrage his still-devastated friend Hughes by publishing, first in the *Observer* and then in his book *The Savage God: A Study of Suicide*, an account of what he believes happened the morning of February 11, 1963. A few hours before a newly hired au pair was scheduled to arrive, Plath went upstairs to her children's room, set down two mugs of milk and a plate with bread and butter, and returned to the kitchen. Sealing the door and window with towels, she opened the oven, laid her head on a cloth and turned on the gas.

HUGHES HAD PUBLISHED more work and to better reviews than Plath, but her suicide spawned a virtual cottage industry of analysis, criticism and biography; in death, Plath began to eclipse him. It was as if every learned observer wanted to solve the riddle of why Plath, so talented and so young, took her life. Many were quick to point accusing fingers at Hughes. To feminists, Plath became a kind of martyr, a victim of an era—and of a domineering man. (As a measure of how high passions ran, Plath's gravestone was repeatedly defaced, her married name, Hughes, chipped off.)

The attack on Hughes sharpened six years later when Assia killed herself and 4-year-old Shura, the daughter she had had with Hughes, by putting their heads in a gas oven in seeming solidarity with Plath. Hughes' old friend Lucas Myers says that Hughes felt powerless to prevent Plath's suicide, but believed he could have saved Assia. "During those six years between Sylvia's death and Assia's death, Ted could not, did not, get his life so arranged so that he and Assia could establish a household," says Myers. But time, further research and the publication in the past 20 years of Plath's journals and

Plath and Hughes' daughter, poet Frieda Hughes (above, left), objected to the film *Sylvia*: "They think I should give them my mother's words / To fill the mouth of their monster," she wrote. Plath is buried in Heptonstall, West Yorkshire, England.

Hughes' letters suggest to some that Hughes may simply have been a convenient, or politically expedient, scapegoat.

Alvarez is one of the very few who postulates that Plath probably expected to be rescued: "She set things up to be saved. But she was beyond caring." Late the night before, according to Alvarez, she knocked on a downstairs neighbor's door, ostensibly to borrow stamps. She questioned him pointedly about what time he got up in the morning. She also knew that the au pair was scheduled to show up relatively early. Alvarez suggests that she was counting on the neighbor to smell the gas or the baby sitter to open the door to save her. But the au pair had no key, and the neighbor was himself knocked unconscious by gas that seeped downstairs.

Wintering author Kate Moses believes that Plath displayed the symptoms of bipolar disorder, which may have been aggravated by a severe form of premenstrual syndrome. Moses adds that Plath may also have learned that Assia was pregnant.

Plath herself had become acutely concerned about her mental health. Realizing that she was exhibiting symptoms similar to those she experienced before her suicide attempt years earlier, she had sought psychiatric help. A doctor, John Horder, who was arranging therapy sessions for Plath, first prescribed an antidepressant. Hughes later surmised that the psychoactive drug was itself the culprit, noting (as did Horder) that such a drug can pull a patient out of the doldrums just enough to provide the energy and will to carry out a suicide.

Hughes was also condemned by detractors for destroying Plath's last journal, or parts of it; among varying responses, he said that its contents would simply have been too painful to her family, especially their children. No trace of the novel she had supposedly begun was ever found. Some suggest that Hughes had simply eradicated documents that portrayed him in an unkind light, a conclusion that even he conceded was inevitable. "I saw quite clearly from the first day that I am the only person in this business who cannot be believed by all who need to find me guilty," Hughes wrote to Anne Stevenson, shortly after her controversial Plath biography, *Bitter Fame*, was published in 1989. For her part, Middlebrook defends Hughes: "Anyone who criticizes him isn't giving enough weight to the crushing guilt that followed from Plath's death and his own horrible situation afterward. It took him a while to get his feet down, probably ten years."

Hughes, in fact, must be credited with making sure that Plath's work would be read. She had spent a great deal of time arranging the order of the *Ariel* poems. But when a publisher turned the manuscript down, Hughes agreed to revise the organization, and the book was published in England in 1965 and the United States in 1966. Author Kate Moses notes, however, that Plath's version of *Ariel* was "fragile but hopeful," while Hughes' reorganization turned the poems into a "long, slow, painful, furious 'suicide note.'" Says Moses, "*This* is why we think of Sylvia Plath as we do—because of how *Ariel* was published and what it seemed to tell us about her."

Hughes also arranged for the publication, in 1981, of Plath's *Collected Poems* and, later, her journals. It is especially sad, says Karen Kukil, associate curator of rare books at Smith and editor of the journals, that Hughes got to know his wife better after her death. "In reading her journals, he wrote a lot of his *Birthday* poems," says Kukil. "In a way he learned a great deal about her and what she was thinking by reading her journals after she died."

EVEN BEFORE *Sylvia* was released, the film had found one very vocal critic: Frieda Hughes, now 43, Plath and Hughes' daughter and a poet in her own right. "Why would I want to be involved in moments of my childhood which I never want to return to?" Frieda asked when invited by the BBC to collaborate on the film. Indeed, she wrote a poem in protest, which at one point scorns the "peanut eaters, entertained / At my mother's death."

In "Lady Lazarus," one of Plath's best-known poems from *Ariel*, the "peanut-crunching crowd" gawks at Plath who entertains the masses by barely surviving accidents and her early suicide attempt. There is a kind of sarcasm in what is one of the poem's most quoted lines, but beneath its flippant veneer lay a terrible truth:

Dying
Is an art, like everything else.
I do it exceptionally well.

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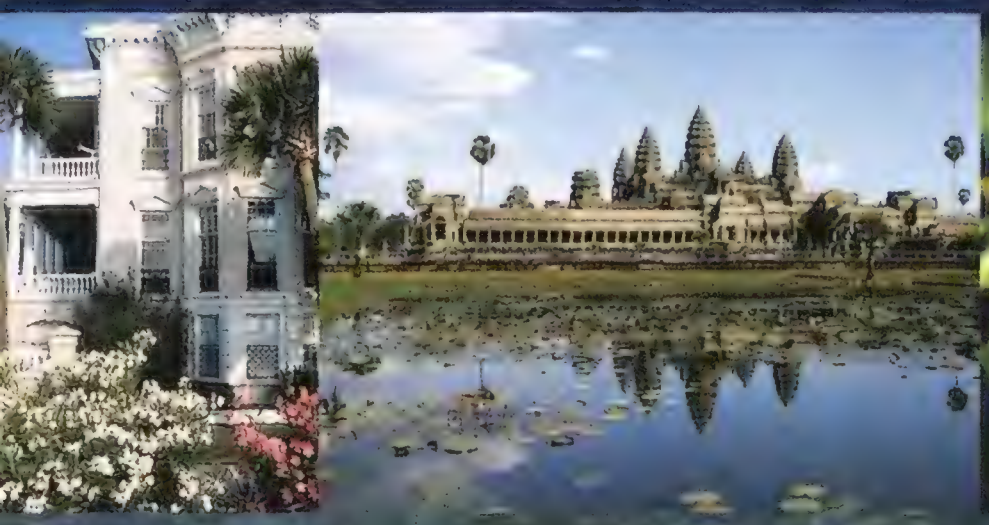

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CELESTIAL SI

From Triton's active geysers to the Sun's seething flares, newly enhanced images from U.S. and foreign space probes depict the solar system as never before

BY MICHAEL BENSON

AFTER THE OBSERVATIONS of the ancients and the meticulous mathematical charting of Johannes Kepler, after Giotto's comet fresco and the telescopic discoveries of Galileo Galilei, after *Sputnik, Ranger* and all the far-flung probes of more than four decades of spaceflight—we have the stark, spectacular beauty of the spheres themselves. They're suspended in space like weightless jewels. Of the planets, most have moons. Of the moons, some are bigger than planets. Both moons and planets can have tenuous atmospheres, or incredibly thick ones, or none at all.

Much of the solar system's awesome scenery has been photographed, scanned and parsed for more than 46 years by over 100 robotic explorers from the United States, the former USSR and 16 other nations. The information we've acquired in the brief years of direct space exploration so far outstrips all previous human knowledge of the solar system as to make the comparison almost ridiculous—a library of encyclopedias next to a dime-thin pamphlet.

I've been monitoring the activity of solar system probes for much of the past decade, looking for deep-space photographs that inspire awe. I found myself going through many thousands of raw, unprocessed photographs from NASA's robotic explorations, fascinated to stumble on previously unnoticed views of alien topographies. Many of the pictures can be found on-line, on Web sites such as NASA's Planetary Photojournal (http://photojournal.jpl.nasa.gov/) and Views of the Solar System (www.solarviews.com). The most ravishing extraterrestrial landscapes I could find, including those on these pages, appear in my new book, *Beyond: Visions of the Interplanetary Probes* (Harry N. Abrams, Inc.). Most of the images required digital enhancement. Some had never been rendered into color before. Others are composites. All are wondrous, at least to me.

Near the outer reaches of the solar system, the second largest planet hovers like a hallucination. The shimmering ring system of Saturn is

SUN This image of the Sun's outermost layer, or corona, was taken on June 10, 1998, by TRACE (Transition Region and Coronal Explorer). The Earth-orbiting NASA spacecraft, launched two months earlier, has an unobstructed view of the Sun eight months of the year. It is helping to solve the mystery of why the Sun's corona is so much hotter (3.6 million degrees Fahrenheit) than its surface (11,000 degrees Fahrenheit). TRACE is also shedding light on solar storms, which damage satellites and disrupt power transmissions.

GHTSEEING

EARTH The detail in this April 24, 1999, photograph of the Great Lakes, taken by the *OrbView-2* satellite, is so sharp that ice is visible on the northern shoreline of Lake Superior (the westernmost lake). On the right edge of the horizon, Cape Cod and Long Island can be discerned under a thin layer of the atmosphere. The privately owned satellite provides daily color imagery, used for environmental monitoring, fishing and agricultural operations. The craft orbits the poles, 440 miles above Earth.

250,000 miles wide and formed of minute to boulder-size particles—ice, dust and rock—held in the gravitational grip of a rapidly spinning central sphere. Saturn looks almost *designed*—an object as perfect as mathematics.

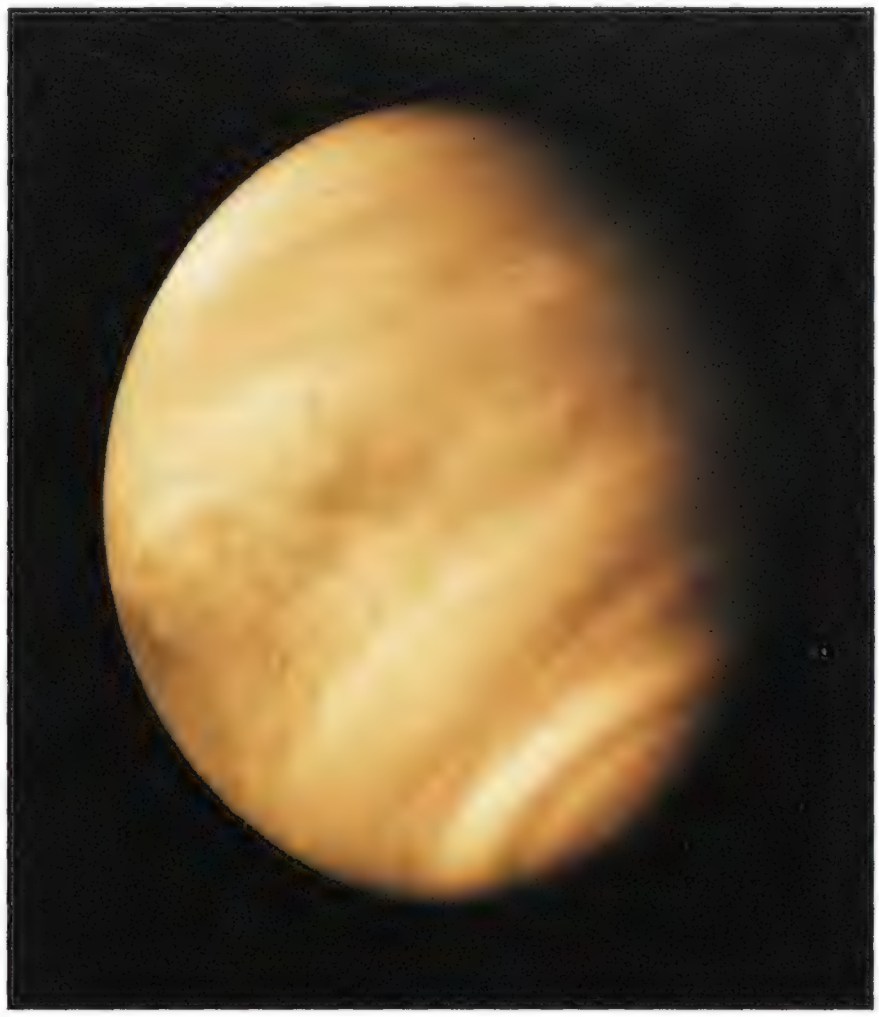
Jupiter, the largest orb by far, has flickering polar auroras, high-speed scudding clouds and massive whirling-dervish storm systems that define the gaseous planet's face. Jupiter's powerful gravity means that its innermost large moon, Io, is unstoppably volcanic and eerily lurid in its surface coloration. By contrast, a second Jovian moon, Europa, is cool and off-white, a frozen, giant cue ball. A third satellite, Callisto, has been so ravaged by eons of meteor impacts that it looks nothing like the other two Jovian moons. Their proximity to one another only accentuates the disparity. NASA's *Galileo* probe—which ended its 14-year mission by diving into Jupiter this past September—found the first moon of an asteroid and helped planetary geologists deduce that the spidery network of cracks on Europa almost certainly betrays the presence of a liquid-water ocean beneath the icy surface. This tantalizing prospect has renewed speculation that the Jovian moon may support life.

Closer to the familiar blue glow of our home world, cloud-shrouded Venus is a solid "terrestrial" planet, like Earth, Mercury, Mars and Pluto, whereas the others—Jupiter, Saturn, Uranus and Neptune—are gaseous. The baking surface of Venus ripples and heaves with strange, protuberant forms first discerned in the early 1990s by *Magellan*'s unwavering radar eye. The phenomena were quickly dubbed "ticks" and "arachnids" by planetary scientists and are almost certainly the result of subsurface volcanic activity.

Our other next-door neighbor, Mars, sports seasonal dust devils that trace spidery calligraphic streaks across Valles Marineris, the grandest canyon in the entire solar system and as wide as the continental United States. This complex of vast and serrated desert walls was named after its discoverer, NASA's *Mariner 9* probe, launched in 1971 and the first to orbit the planet. Two recent orbiting probes—the *Mars Global Surveyor* and the *Mars Odyssey*—revealed that the Red Planet's distinctive gullies, among other features, suggest the presence of water below the surface.

MICHAEL BENSON is a freelance writer and filmmaker whose 1995 Predictions of Fire *won an award for best documentary at the Vancouver, Canada, and St. Petersburg, Russia, film festivals.*

VENUS ***Mariner 10*** **took the ultraviolet view below during its February 5, 1974, flyby of the brightest planet. The mosaic of three images reveals that the planet has distinctive atmospheric patterns. Under heat-trapping clouds, temperatures can soar to about 900 degrees Fahrenheit, hotter even than Mercury, which is the closest planet to the Sun. In later expeditions, radar penetrated the thick cloud coverage to map the planet's surface. Its terrain is marked by numerous impact craters and volcanic formations.**



MERCURY **True to its quicksilver name, Mercury speeds around the Sun every 88 days at nearly 31 miles per second, faster than any other planet.** ***Mariner 10*** **took this photo mosaic (right) on March 29, 1974, from a distance of 3,340,000 miles en route to Mercury from Venus. The photograph shows a planet scarred by collisions with thousands of meteors and looking a lot like our own moon, though Mercury is 40 percent larger and far denser.** ***Mariner 10*** **also revealed that Mercury has an overall magnetic field and an iron core, characteristics the planet shares with Earth.**

MARS This amazing panorama of the Ares Vallis flood plain made the front pages of newspapers around the world in July 1997. It was taken by the *Mars Pathfinder* lander and features the tiny, 23-pound *Sojourner* rover nuzzling a rock. The lander and the rover recorded weather patterns, atmospheric data and the composition of many Martian rocks, which apparently had washed down the channel eons ago. The rover, capable of changing course when it met obstacles, captured the imagination of the thousands who followed the mission on the internet.

SATURN Made mostly of hydrogen and helium, Saturn's volume is 755 times greater than Earth's. This image, taken in October 2000 by NASA's Earth-orbiting Hubble Space Telescope, captures a mysterious salmon color in Saturn's rings that hints at the presence of complex organic molecules. Analysis of the images also shows at least two unknown substances in the rings, which may have formed when an object veered too close to massive Saturn's gravity and broke up. It's hoped the *Cassini* mission in 2004 will provide answers.

NEPTUNE'S MOON TRITON After visiting Jupiter in 1979, Saturn in 1981 and Uranus in 1986, NASA's *Voyager 2* spacecraft reached Neptune in 1989, the first probe to observe the planet and its largest moon, Triton. In this August 25, 1989, photograph, *Voyager 2* surprised scientists by spotting signs of active geysers (the black streaks visible at the top of the image), believed to be burps of gaseous nitrogen and dark dust particles. Triton has the coldest known surface of any planet or moon—about minus 391 degrees Fahrenheit—in our solar system. The moon is so cold that its surface is mainly nitrogen ice.

Mars, too, the speculation goes, may have once hosted extraterrestrial life—and may still.

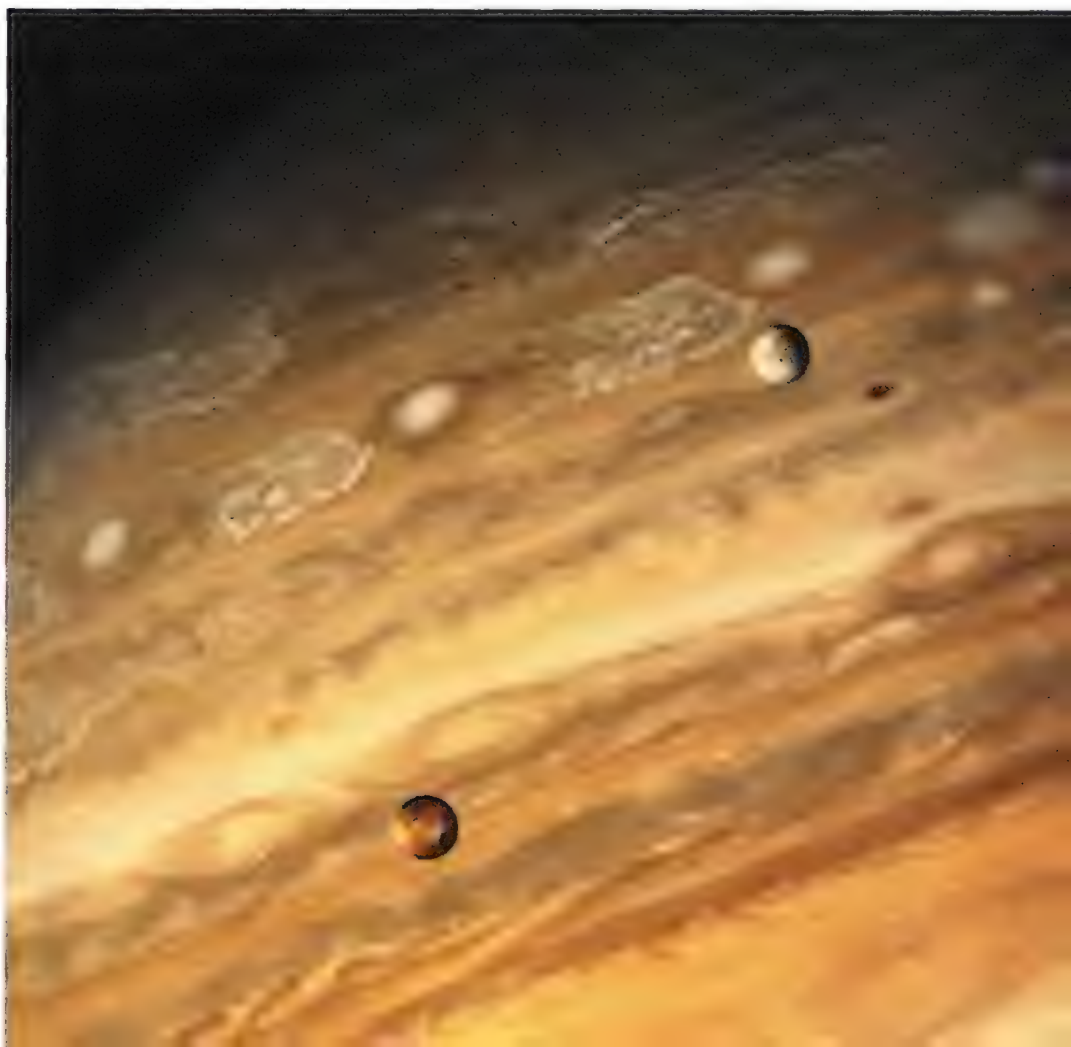
Despite NASA budget cuts and a crisis in the agency following the loss of the Space Shuttle *Columbia*, the flood of celestial revelations isn't about to stop anytime soon. In January 2004, four new probes—two rovers from NASA, one orbiter from the European Space Agency, which will release a lander, and another orbiter from Japan—will circle Mars or send instruments to the Martian surface. Those craft will join the probes that are currently orbiting the planet, for an unprecedented seven spacecraft snooping on Earth's closest planetary neighbor simultaneously.

Also in 2004, one of the largest and most complex interplanetary spacecraft ever conceived, NASA's *Cassini*, will arrive at Saturn after a seven-year flight. The school-bus-size robot will study the planet's rings and deploy a European-built probe called *Huygens*, which will penetrate the clouds covering Saturn's mysterious moon Titan. That opaque brown sphere appears to be rich in some of the organic chemicals that presaged life on Earth; it may contain lakes, or even oceans, of liquid ethane or methane.

A small squadron of other space probes are in development, including NASA's *Messenger*, which will settle into orbit around Mercury in spring 2009, and its *New Horizons* Pluto-Kuiper Belt probe, scheduled for a 2006 launch to the solar system's remotest, smallest planet. After a reconnaissance of Pluto and its moon, Charon, it will venture on to the intriguing array of cometary snowballs at the dim edge of the solar system, the Kuiper Belt.

When all those robots get where they're going, they will, like the explorer probes before them, help place us in space and time, change our sense of our position and our possibilities, and reveal glinting and unexpected new vistas under the dazzling Sun. ○

JUPITER Before *Voyager 1* visited Jupiter in 1979, astronomers believed the solar system's largest planet had 13 moons; the probe increased the number to 14. Now, many observations later, the count stands at 61. Two moons appear to float above the planet's surface in this February 23, 1979, *Voyager 1* photograph: Io (lower left) is the innermost large satellite and Europa (upper right) has most likely a subsurface ocean. Many of the outermost moons are probably sojourning asteroids captured by Jupiter's gravity. The spacecraft also discovered a set of rings around the planet and lightning in cloud tops.



DREAM WEAVERS

BY BRUCE SELCRAIG · PHOTOGRAPHS BY DANIEL BORRIS

CHOIRS OF ROOSTERS AND BURROS salute each sunrise in the pre-Columbian village of Teotitlán del Valle (pop. 6,000), nearly a mile high in the Sierra Juárez foothills a couple of miles off a rutted section of the Pan-American Highway east of Oaxaca City. Tall cactus fences separate oxen-tilled plots of corn and black beans. Short, broad grandmothers speaking only Zapotec, the native language of this region, their wide bronze faces creased like pecans, dutifully grind corn for tortillas and march their pigs to market . . .

. . . Past the stylish Zapotec restaurant that garnered enthusiastic reviews in the *New York Times* and *Saveur* magazine, past the new two-story brick houses that harbor shiny $30,000 pickup trucks and satellite dishes—most likely paid for in cash—past the Zapotec families with their own Web sites, and that new bed-and-breakfast yoga retreat up the hill.

IN THE MEXICAN VILLAGE OF TEOTITLÁN, GIFTED ARTISANS CREATE A FUTURE FROM BRIGHT HAND-LOOMED RUGS

This display of wealth, while common in larger Latin American cities, is still startlingly rare in its Indian villages. That such prosperity exists in one of Mexico's poorest states, a mountainous region consumed by profound poverty, is all the more surprising.

Too often prosperity of this kind has come only illicitly, say, with the harvesting of coca in Peru or the rise of *narcotraficantes* in Colombia. But that is not the case in Teotitlán. Anthropologists and importers alike agree that this tiny Third World jewel boasts one of the highest standards of living of any indigenous village in our hemisphere, perhaps the world—not because of drugs, but, remarkably enough, rugs.

Not only do Teotitlán weavers earn more than many white-collar professionals in Oaxaca City, a vibrant art mecca with more than a half-million people 20 miles away, but they, and the revenue they bring in, have elevated the village in countless ways. In families where the parents never got beyond the sixth grade—and many women were discouraged from attending school at all—children now routinely attend colleges such as the University del Mar and the National Institute of Fine Arts and Literature. The town has built roads, schools, a new city market, a drainage system and a clinic, which has three doctors. (Residents want two more.) Even more impressive, many women have gained economic independence and social confidence—ultimately helping to reduce teenage marriages and domestic violence.

"Teotitlán is a folk art miracle," says Barbara Mauldin, curator of the Latin American collection at the Museum of International Folk Art in Santa Fe, New Mexico. "They have a great product, but it's all about the people—their artistic talent, perseverance, marketing savvy, plus the good fortune of being located near a major tourist market in one of the most beautiful valleys in Latin America."

You've probably seen the source of Teotitlán's success—the Zapotec wool rug—even if you didn't recognize it as such. Sometimes called Oaxacan rugs, or confused with Navajo varieties, they range in size from about 2-by-3-feet to 8-by-10 and cost anywhere from $25 to $500. (Elegant, naturally dyed pieces from the most famous weavers can cost several thousand dollars.) Over the past two decades, Zapotec rugs have shown up in thousands of living rooms across the world—on walls as well as floors—and in folk art boutiques and galleries from Oslo to Osaka.

Since the early 1970s, when I saw my first Zapotec rug, sold from a rusted Volkswagen van on a San Diego beach, the

The beauty of Teotitlán's signature creation, the Zapotec rug (displayed by merchant María Isabel Gutiérrez in the village market), lies in rendering traditional motifs with dyed wool and silk. Says handicraft scholar Barbara Mauldin: "Teotitlán is a folk art miracle."

humble weavings have evolved from unpretentious tourist souvenirs into wildly popular "Santa Fe-style" fashion accessories and, more recently, folk art masterpieces. Some years ago they achieved a pinnacle of rug fame—Pakistani factories began churning out Zapotec knockoffs.

Still, Zapotec rugs would likely have gone the way of Nehru jackets were it not for buyers who sensed that the rugs transcended mere souvenir culture. Thousands of tourists from such creative hotbeds as Seattle, Toronto and Austin connected with the weavers, creating a buzz that eventually would bring a half-million tourists to Oaxaca state each year. Travelers who came to Teotitlán for an hour often found themselves spending entire days in weavers' homes, taking photographs, exchanging addresses and bargaining into the night.

What was a mom and pop cottage industry 30 years ago—based on a centuries-old, pre-Spanish weaving tradition—has turned into a multimillion-dollar phenomenon involving a couple of hundred families and multinational importers. Today the enterprise is fueled by gallery exhibitions, coffee-table art books, TV documentaries, countless travel articles and, of course, the Internet. Farming families who once produced a few 5-by-7-foot rugs each month on the side now employ 10 to 15 weavers to meet the demands of American importers who order several thousand rugs each year.

Teotitlán's weavers, who have created an international market for their rugs, enjoy the highest standard of living (evidenced by a rebuilt central marketplace) of any Indian village within Mexico.

Scott Roth, an importer from California who travels to the village so often he has his own room in one family's home, made his first trip to Teotitlán in 1974. In those days, he says, "about 90 percent of the homes were adobe and 10 percent were brick. Now that's reversed. They've had electricity since 1965, but there were very few TVs. No paved roads. There was only one car in town, a '58 Ford Edsel. Now maybe 90 percent have TV; about half have refrigerators." A commercial Teotitlán weaver might make $15 a day, compared with the $10 a day a Oaxaca City police officer earns or the $8 a day paid to a teacher. (The minimum daily wage is $4.) "The wealthiest families have maybe $10,000 to $20,000 in cash savings, most often used to make improvements to their homes," says Roth. "I've yet to see anyone who hasn't made a sound economic investment."

BRUCE SELCRAIG is a writer based in Austin, Texas.
Photographer DANIEL BORRIS, long a resident of Mexico, now lives in San Antonio, Texas; this is his first appearance in SMITHSONIAN.

All this in a state where the per capita annual income is just over $1,000, and even lower among the state's 18 indigenous groups, including Huaves, Zoques, Popolacas and Zapotecs. Twenty-seven percent of Oaxacans cannot read or write, but among the state's Indians the rate climbs to 42 percent for those over 14 years of age. While Teotitlán is hardly free of poverty, the village shimmers like a Vegas casino compared with nearby settlements that barely have electricity, plumbing, roads, schools or clinics.

PICTURE A HIGH SIERRA VILLAGE, set against a backdrop of cornfields and marigold plots and framed by serrated Aztec mountains, where the air is thin and clean and warm, and weaving families still welcome strangers with smiling faces and homemade soup. In a typical weaving home, a nondescript, corrugated metal front door—one learns not to judge books by their covers here—leads to a sunny inner courtyard, perhaps shaded by a lime tree, climbing jasmine or pink bougainvillea, and a room with a Virgin of Guadalupe shrine at one end and stacks of folded rugs at the other. Amid the seductive fragrance of lanolin in pre-washed fresh wool, a child may greet you at the door, but an older sister or aunt stands ready to talk if you're a serious buyer. The man of the house smiles and continues clacking away on a heavy loom (with notable exceptions, men still do most of the weaving and design work; women usually perform all domestic chores, cook and help prepare the wool).

Handshakes are gentle. In conversation, Teotitecos wait for you to finish; interruptions and aggressive behavior are considered rude. Over many visits I've yet to witness an adult scream at or hit a child. "The kids have great role models in their parents," observes Roth. "I'm convinced their healthy upbringing is one reason why they're so artistic." When kids aren't playing or in school, they're likely carding or cleaning wool, preparing to move up to dyeing, spinning or, ultimately, weaving.

Elena Gonzalez, the 36-year-old daughter of Januario Gonzalez, a respected weaver, says that her "very traditional" mother, who was never taught how to weave, is aghast that Elena cooks with an electric stove and uses a blender to make the cornmeal paste for tortillas, rather than grinding it in a basaltic metate, as women have for centuries. Even so, the two of them happily coexist in the kitchen.

In 2,000 years, the village has survived natural disasters, the industrial age—and that unpleasantness in the 1500s.

BRUCE SELCRAIG

A reliance on ancient, labor-intensive techniques defines the Zapotec rug. Weavers, avoiding synthetic dyes, produce natural colors from insects (including, top left, the cochineal, harvested in a milky-white larval stage from its host, the nopal cactus; when crushed, the parasite yields a scarlet powder) and plants (top right, the leaves and flowers of the *muitle* shrub create shades of purple). Once the pigments have been dissolved in water, artisans soak skeins (above) for up to several weeks to achieve the yarn's rich hues.

Five hundred years ago, when Spaniards enslaved the Zapotecs, confiscated vast valleys and mountain ranges, and exposed millions of Indians to smallpox and other diseases, the resourceful Teotitecos were allowed to keep their land. That privilege may have been granted because they demonstrated a willingness to adapt to European culture.

The Spanish recognized the Teotitecos' splendid weaving skills, and in an irony, considering the misery they otherwise brought to the Zapotecs, introduced *churra* sheep and the upright European-style loom, which have helped sustain Teotitlán ever since. By the 1600s disease claimed as many as three or four Teotitecos a day—reducing the region's Zapotec population from 350,000 to 45,000. Yet somehow Teotitlán survived.

Teotitlán's rug trade remained fairly modest until the mid-1980s, when American consumers developed a fascination with all things Southwestern. Joe Carr, author with Karen Witynski of six books on Mexican design, claims that Ralph

~ A LOOM OF ONE'S OWN ~

I still remember my first day in Teotitlán nearly 20 years ago, when a young struggling couple with three small kids accepted my $250 personal check for a rust-colored 6-by-9-foot rug—then, when I missed the last bus back to Oaxaca City, invited me to stay with them overnight. It was on that first visit with Alberto and Ana Gutiérrez that I met Alberto's then teenage sister María Isabel.

Now in her mid-30s, María Isabel packs about a hundred rugs, place mats, bedspreads and shawls into giant plastic laundry sacks each morning, loads them into the back of a pickup truck and drives less than a mile to Teotitlán's small plaza, or *zócalo*, where she joins about two dozen other women (and the occasional older man) in open-air stalls next to city hall. It takes her about 90 minutes each morning and evening to unpack her pieces, stack them on tables and hang them on poles.

Seven years ago, María Isabel's father died suddenly at age 55 from a heart attack, leaving her devastated and unprepared to take over the family business. But she taught herself how to package and ship the rugs, how to drive a car and, eventually, how to process computerized credit card transactions. She has only six years of formal education but a PhD in street smarts. "I can tell from 50 yards away," she says, "if someone is from France, Germany, Italy. A European will want a smaller rug, something that represents the town, with scenes of cactus or churches. They're more hesitant to spend than Americans."

With responsibility came an epiphany: perhaps her life wasn't a disaster just because she wasn't married. "I'm not sure there are any men intelligent enough for me," she teases, trying to keep a straight face. "I look around . . . but it's not a high priority right now. I know how to survive."

For decades, village women (including Elena Gonzalez and her mother, Macaria Ruíz) were excluded from either weaving or selling rugs. Says local activist Amelia Vásquez: "Today things are changing. . . . Now we are gaining our independence."

University of Oregon anthropologist Lynn Stephen, who is famous in town for having learned Zapotec—it's a difficult tonal language—and for writing the groundbreaking book *Zapotec Women*, says prosperity has given women more choices. "Many more women simply aren't getting married," she says. "They're now thinking, 'Why should I just marry any guy? If I can weave, I can make my own money.'"

Elena Gonzalez would likely agree. "I'm happy being by myself," she says. Gonzalez, who spends six months a year in a Colorado ski town, living with a family who runs a craft store, says she's not about to trade independence for marriage just to be married. "I think some girls here, when they hear about my life in Colorado, want to be like me. In Teotitlán, when you marry, you're expected to do the cleaning, fix the meals, care for the children. Maybe I'll find the right person in Colorado."

As Elena spoke, sitting at the foot of her family's century-old loom, a slight, gray-haired woman in her 60s joined her. Amelia Vásquez, who runs a ten-year-old weaving cooperative for single mothers and widows, listened to what would have been radical ideas when she was Elena's age. "It was very hard for us at first," Vásquez says. "A lot of us weren't taught to weave, but we thought we could do everything that men were doing." She says men initially opposed women traveling into Oaxaca City to sell rugs, but relented when they realized women consistently outsold men.

"Men are always out front on everything in this town!" Vásquez goes on. "But things are changing. Before, we had all these designs only in our minds and hearts, but we couldn't let them out because our husbands and fathers always did the designs. Now we are gaining our independence." —*B.S.*

Vivid, vegetable-dyed wool or silk yarns (shown, top) are ingredients in Teotitlán's success. So are its master artisans (among them, Arnulfo Mendoza, at his loom, combing threads in order to tighten the weave). Mendoza, an internationally renowned artist who has studied weaving in France and Japan, produces original designs—including intricate geometrics and tapestries depicting mythic figures from Zapotec legend—for his gallery in Oaxaca City. "My work," he says, "is rooted in the traditions of Mexican textiles."

Lauren and his Santa Fe-style Polo ads spurred the craze. "When I lived in Santa Fe," says Carr, now a resident of Austin, Texas, "I sold Ralph Lauren some of his very first Navajo blankets, around 1978 or '79—four or five really expensive, classic blankets like you'd see in his ads. He grabbed hold of this [Southwest] design thing." Then collectors from New York and Chicago began showing up in Santa Fe and Aspen looking for Navajo antiques. Eventually, Carr says, several buyers realized that a vintage Navajo rug, which might cost $25,000, could be reproduced in Teotitlán for less than $500. "From across the room," Carr adds, "most consumers couldn't tell them apart. The Teotitlán rugs were perfect as decorative pieces."

Before long, living rooms in Minneapolis and Kansas City were looking like tepees. Teotitlán weavers rode the wave, whipping out thousands of Navajo designs, often altering their own traditional (and naturally dyed) browns, grays and indigos to appease America's Southwestern design police, who decreed pink, teal and sky blue the acceptable colors of the day.

But some weavers rejected pastels, Navajo knockoffs and the easy geometric clichés they could weave with their eyes closed, and began creating designs inspired by the works of modern artists like Picasso, Miró and M.C. Escher. One innovator, Sergio Martínez, introduced bold russet, black and gold rugs, inspired by fabrics from Ghana and Nigeria. "It shocked some of the other weavers," Martínez said one afternoon, as his son cruised past on Rollerblades. "Change does not always come easy here."

Another artisan, Arnulfo Mendoza, who studied weaving in France and Japan, pioneered elaborate silk, cotton and wool designs that sell in his Oaxaca City gallery for more than $5,000. "Now I have people knocking-off my designs all over the state," says Mendoza, whose rugs have been exhibited in Berlin, Madrid and New York. "I guess that's better than them copying Picasso—because my work is rooted in the tradition of Mexican textiles."

California importer Scott Roth (on ladder, in his Teotitlán warehouse, with dyer Nicolas Alavéz) markets Zapotec rugs to the world. Roth attributes the village's prosperity to its "deep creative impulse."

UNDERSTANDABLY, wealth and worldliness have brought tensions. The long-standing divisions between rich and poor have grown more striking. The wealthier weavers' large houses line a newly paved asphalt road leading to the Pan-American Highway (all the easier for tourists to find); the poor live on the fringes. "It has become a more segregated town," says anthropologist Lynn Stephen.

While the Zapotec language remains strong, many adults lament the growing trend for children to speak Spanish. "Kids are watching too much TV," says Reynaldo Sosa, the town's vice president, sounding a familiar refrain. Even the very rhythm of work has changed in some homes. When everyone farmed, sunset signaled the end of work. After electricity arrived in 1965, the ubiquitous bare light bulb, hanging from a single electrical cord, allowed weaving late into the night, increasing profits as it reduced leisure time. With the encroachment of modernity, even AIDS has reached the Oaxaca Valley.

Still, Teotitecos seem to approach the future, whether it brings earthquakes or peso devaluations, with the collective knowledge that they will adapt and survive. Ask a weaver what would happen if the world quietly decided Zapotec rugs had outlived their hipness? "We would find other things to do," says Sergio Martínez. Then he adds: "I don't think people will stop buying rugs—maybe just a certain style."

Beneath portraits of 21 uniformly unsmiling town presidents, dating back to 1919, Reynaldo Sosa allowed that a rug recession would not be good. "That's why we are trying to prepare our children to be professionals," he said, citing the need for more doctors and a high school. "After September 11, rug sales went really down, and we worried. But now things are better."

That's about as close as anyone here gets to panic. Much of this inner calm about unseen economic forces may result from the fact that Teotitecos for the most part try to avoid debt. "Our homes are paid for and we can grow our food," one elder told me. "Can you say that in the States?"

Will Teotitlán's young people stay committed to weaving or do they feel chained to the loom and yearn to abandon small-town life? Some smile at such questions and admit that having everyone in town knowing who you're dating, or who you want to date, is a bit suffocating. But most of those I talked to assured me that they see weaving not just as a family duty or a traditional obligation, but as a cherished part of their identity. Like water to dolphins.

"There are kids in Teotitlán now who want to be lawyers, doctors and engineers," said Pantaleón Ruiz, 29, a weaver who has his own Web site and organizes exhibitions in the United States. "I think that's great. I took broadcast classes and worked at a radio station in San Francisco, but one day I realized art was my life. I went back home to Teotitlán." ○

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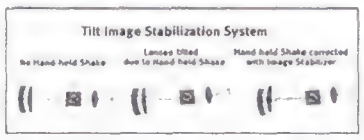
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"THE PRESIDENT'S BEEN SHOT"

FORTY YEARS AGO, THE ASSASSINATION OF JFK STUNNED AMERICANS, WHO VIVIDLY RECALL THE DAY EVEN AS THEY GRAPPLE WITH HIS COMPLEX LEGACY ~ **BY DANA CALVO**

SO IT HAS BEEN 40 YEARS—almost as long as he lived. John F. Kennedy was 46 when he was shot while sitting next to his wife, Jacqueline, in the back seat of a Lincoln Continental convertible on Elm Street in Dallas at noon. The president was visiting Texas to bolster his standing in the South. He was declared dead an hour later at Parkland Memorial Hospital. Vice President Lyndon Baines Johnson, aboard Air Force One at Dallas' Love Field, was sworn in as the chief executive before flying to Washington. JFK was the 35th president and the fourth to be assassinated. His 1,000 days in office constituted the seventh briefest term.

Shock, anger, sorrow—words hardly convey the cataclysm of November 22, 1963, and its aftermath. Lee Harvey Oswald, a 24-year-old admirer of Soviet Communism, fired a rifle from a window of the Texas School Book Depository building where he worked as a laborer. He was arrested later that day for assassinating the president, wounding Texas governor John Connally, who rode in the same car, and slaying a policeman. Two days later, Oswald was shot to death in a police station basement by nightclub owner Jack Ruby in front of news photographers and television cameramen, adding to the chaos and accentuating TV's new eminence as a provider of shared experience. Then came the days of mourning for JFK. They are documented in an album of unforgotten images—the tens of thousands of people waiting to view the flag-draped coffin in the Capitol Rotunda, the riderless horse in the funeral cortege, the veiled widow and her saluting 3-year-old son, the eternal flame.

The blow was so devastating partly because, as *New York Times* reporter Tom Wicker put it at the time, JFK was the "herald of a new generation of American purpose." Theodore Sorensen, the president's special counsel, lamented the "incalculable loss of the future." Yet the future arrived anyway, and Kennedy helped set in motion some of its more notable turns, such as civil rights legislation, the moon landing and the Vietnam War. His is a complex legacy that historians continue to weigh—his deft handling of the Cuban Missile Crisis balanced against the debacle of the Bay of Pigs invasion, and so on—particularly in the light of new information about his concealed health problems and extramarital affairs.

The assassination has resounded through the decades, causing Americans to wonder how the nation might be different had Kennedy lived. *Where were you when it happened?* If the question is threadbare, that's only because people have long needed to ask it, not only to ameliorate the grief and dismay but also, more important, to navigate history. We recently asked a number of prominent Americans what they remember of JFK's death and what they make of his legacy. Here, their responses.

"A piece of each of us died," Senator Mike Mansfield eulogized as JFK's body lay in state in the Capitol Rotunda.

B.B. KING

THE WORD WAS OUT there was a young senator who might become president. He was a handsome gentleman, and the ladies liked him. Usually when you've got the ladies on your side, it helps. I think he had most of the ladies on his side. But then he had a lot of the men too. The band and I were on the bus. We were just pulling up to the Persian Hotel in Chicago, Illinois. We were playing poker. We had the TV on—a local station.

We thought we'd lost everything. I hadn't felt that way ever, the way he made me feel. Being a citizen, you love your country, and you love the president and you stand behind him, but when John F. Kennedy came in, you wanted to help. That's what he made you feel like. "Ask not what your country can do for you, but what you can do for your country." My God, that stirred me up. The things he did in office made me love him forever. He made it possible for black kids to go to schools that had been closing the doors on them. It wasn't always thinking in terms of politics. It wasn't always the smartest thing to do, but it was the right thing to do.

He did more for black people than President Truman did. Knowing that, just thinking about it now, I almost cry again. He gave us confidence that the country loved us too. We felt like real citizens. He gave us a feeling to fight for our rights. I thought it would probably be like that for the rest of my life.

SUMNER REDSTONE

I DID KNOW THE PRESIDENT fairly well. At the time, I was president of the major trade organization in our industry, Theater Owners of America. It represented all the exhibitors in the United States. In the South, black people were being turned away at theaters. I have a telegram from him: *May 28, 1963. I am meeting with a group of business leaders to discuss some aspects of the difficulties experienced by minority groups in many of our cities in securing employment and equal access to facilities and services generally available to the public. These subjects merit serious and immediate attention, and I would be pleased to have you attend the meeting to be held in the East Room of the White House. Please advise whether you will be able to attend. John F. Kennedy.* He was always filled with energy. He was a fighter for things that weren't as they should be.

I was walking down the street in Cincinnati. I was there to look at a location for a theater. Somebody stopped me. I was overwhelmed. I was crying. I remember it like it was this morning. All the credit that he has been given, all of the praise, I think is due him. . . . I've never felt that his private life was the way to judge him. We should judge a president by the way he performs as president.

DANA CALVO is featured in the Editor's Note, p. 11.

SIXTH FLOOR MUSEUM AT DEALEY PLAZA, DALLAS TIMES HERALD COLLECTION

"There is hardly a person on this globe who does not remember exactly where he or she was when first hearing of [JFK's death]," Pierre Salinger, his press secretary, would recall in 1973. Outside the hospital in Dallas where the mortally wounded Kennedy was being treated, a car radio attracts a crowd yearning for news.

ARVA MOORE PARKS

WHEN HE WAS SHOT, I was teaching government to seniors at Miami Edison High School. Some of these kids were 18, and I was 23. We're tied together for eternity. I was standing in front of my fifth-period class and the announcement came over the intercom. Everyone was stunned and shocked.

There was such a sense of optimism in 1963. It spilled over. You were proud to be bright-eyed and bushy-tailed. The assassination was a terrible blow to our self-esteem, to our naiveté.

REYNOLDS PRICE

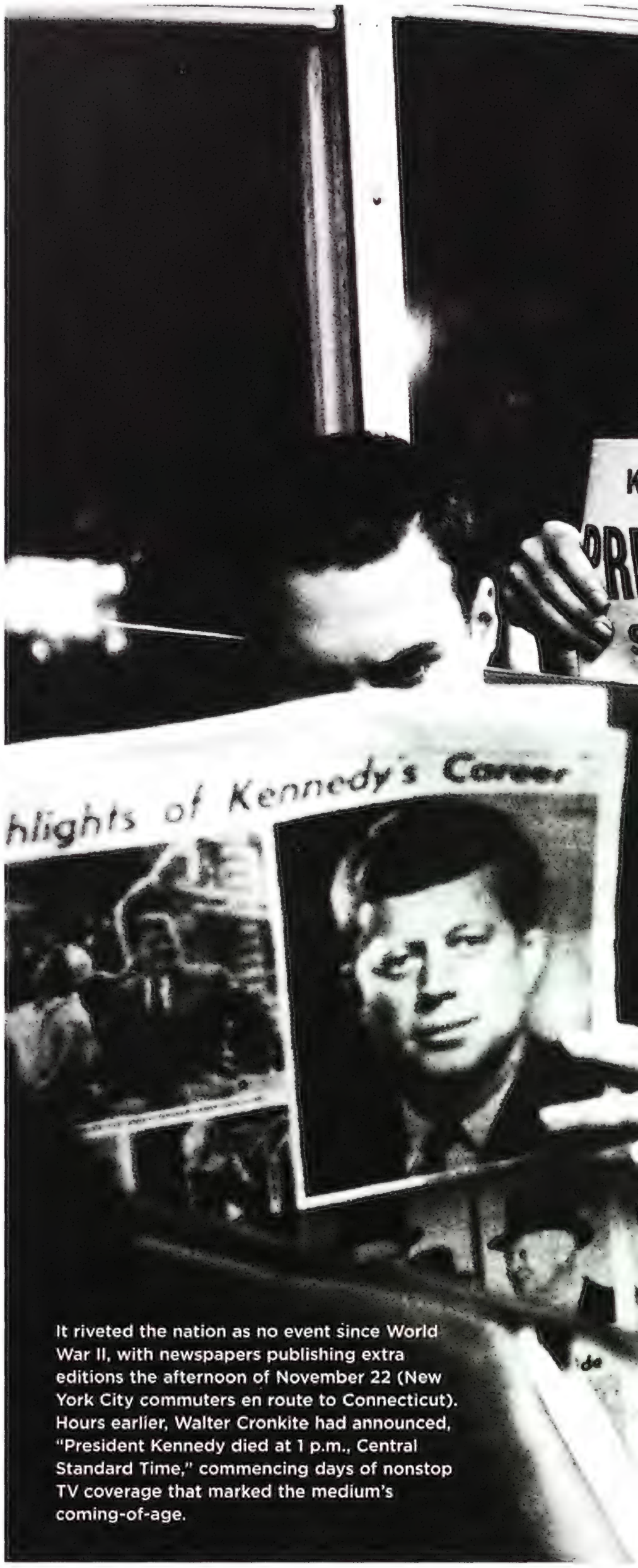
I WAS WALKING on the Duke University campus to teach my freshman English class, and I saw Josephine Humphreys, who's become a wonderful novelist and was then a freshman. She was holding a small transistor radio up to her ear. I said, "Jo, what are you doing?" She said, "The president's been shot." We went up to the classroom, and the other 15 or so students were up there. We just sat there. The radio began playing the funeral march from Beethoven's *Third Symphony*. Then Roger Mudd's voice came on and said President Kennedy had died. We sat there stunned. I didn't even possess a television. I raced over to another student of mine off-campus who had a rickety black-and-white TV. We sat there until 2 or 3 a.m. watching news. I was utterly horrified.

We know now the Oval Office is not a cathedral in terms of sanctity. The impression that everyone loved him is not true. He is now deified. Back then, he was likable. He had many skills and a good sense of humor. He acquired an awesome sense of self-possession during the Cuban Missile Crisis, which was the single scariest event in my life.

MARLIN FITZWATER

I WAS IN COLLEGE, Kansas State University, a sophomore, and I was living at a fraternity house. I kind of remember someone shouting. When the assassination occurred, all of the brothers in the house gathered in the private apartment of our housemother and just sat around stunned, watching the events unfold. We stretched out on the floor. No one said anything. There was a great feeling of shattered emotions. We didn't know what to make of it.

My reflection now is colored by the fact that I spent ten years in the White House with two presidents. I think of it in terms of Mack Kilduff, Kennedy's deputy spokesperson, who had to tell the world Kennedy had just been killed. In the 1990s, when he was the editor of a small paper in Kentucky, he came out to a George Bush rally. I remember



It riveted the nation as no event since World War II, with newspapers publishing extra editions the afternoon of November 22 (New York City commuters en route to Connecticut). Hours earlier, Walter Cronkite had announced, "President Kennedy died at 1 p.m., Central Standard Time," commencing days of nonstop TV coverage that marked the medium's coming-of-age.

CARL MYDANS, TIME LIFE PICTURES, GETTY IMAGES

EDY EXTRA
DENT DEAD
by Assassin
American
NewYorkWorld-Telegram
All Sports Final
PRESIDENT
SHOT DEAD
EXTRA

shaking his hand and realizing, My God, this is the fellow who had such an enormous impact on the nation when he announced Kennedy's death. He seemed so human up against a memory that was larger than life.

MARY TRAVERS

WE DID A CONCERT on November 21 in Houston, and we were driving to Dallas on the 22nd to do a concert. We were in a rental car, and we heard it on the radio. We checked into a room to call the promoter and cancel the concert. We called the airlines and said, "What's the first flight out of Dallas?" And she said, "To where?" And we said, "Anywhere." Because we were firmly convinced Dallas was going to burn down. We ended up flying to L.A. and spending the week watching television there in a hotel.

His presidency was so short. It's all supposition—what kind of president would he have been? Has his myth far outstripped the reality? Of course.

GREGORY NAVA

I WAS IN NINTH GRADE, at Saint Augustin High School in San Diego. I was going to a Catholic school, so you can imagine how important Kennedy was to all of us. He showed a tremendous amount of grit during the Cuban Missile Crisis, but his main thing was the psychological factor. He made us believe in the future, in a better world, in the Peace Corps. He created a feeling of a future filled with hope at a time when we were coming out of a dark period of paranoia, of nuclear holocaust, of fear, the cold war.

I was sitting in the gym, and the coach came in. He had a little transistor radio in his ear, and he said the president had been shot. It was like this beautiful world of hope and youth had just come crashing down. We didn't know that he was dead yet. The school stopped, and everybody was hanging on every word. When the news came that he had been killed, I wept.

What he did have was this vibe, this aura, the energy that anything was possible. I've carried with me that optimism. I constantly revisit it. Had he lived, I think the nation would have followed a completely different path.

WILLIAM SEALE

I WAS A SENIOR at Southwestern University in Georgetown, Texas, about 30 miles north of Austin. I was taking a French exam. The proctor came in, and he looked so strange. I got home at 8:30 p.m., and I hadn't seen a soul, and there was my newspaper, the *Durham Times*, an evening paper, and it said Kennedy had been shot in Dallas. It was so outrageous and horrible that this bright man was taken out like some bird in the field. I was at a friend's house watching them transfer Lee Harvey Oswald and watched Jack Ruby shoot him, and it was as if the whole world was coming apart.

Kennedy was a wonderful political figure. He knew the system, and he interested the public and drew them to the presidency. Of course, they staged a lot of it, and Kennedy and his wife "featured" themselves. The Kennedy administration brought civil rights in as a means of saving themselves. They had not been committed to it for a long time. There was the semi-famous moment when he met with Martin Luther King Jr. at the White House. When King left, Kennedy said, "I didn't know what to say to him."

I can look beyond the assassination and see an administration with enormous ideas and enormous reach and a lack of study and planning to carry them out. I don't think it was a time of great presidents. He was a good president. His death made him bigger than he was in life.

TOM CLANCY

I NEVER VOTED FOR THE GUY. I was only 13 when he got elected. I was a junior in high school when Kennedy got whacked. I was in the Waverly Theater on Green Mount Avenue in Baltimore watching Shirley MacLaine and Jack Lemmon. I had a half-day of school. It was a Friday. I heard it on the way coming out of the movie. The ticket-taker said the president got shot. Then followed four days of nothing but a dead president. They didn't even show the Colts play. He was the president of the United States, so I didn't want him murdered. I wanted him to lose the next election. I mean, what did he accomplish? He has been canonized by the media, which I think is a bit unseemly. He was a handsome guy. He had great style. He meant well. It was Lyndon Johnson who got the civil rights movement rolling. He was a patriot and he put his life at risk in World War II, and that's something to be admired, but I don't see anything historically significant that he did other than the space program. For the space program, I'd buy him a beer.

ALAN K. SIMPSON

I'M A REPUBLICAN, so I wasn't ready for too much Camelot. My dad, Milward L. Simpson, was elected to the Senate in 1962. I met the president and Jackie at the National Gallery of Art. I was with Mom and Pop. It was like meeting the king, the rock star, the superstar. And then Jacqueline came over. It didn't matter what party you were in. They were impressive representatives of your country.

I was walking out on a beautiful day heading to Rotary Club here in Cody, Wyoming, and my friend Mel turned to me and said, "The president's been shot." I walked home. I returned to the bank where my office was, and Walter

The line waiting outside the Capitol to see the slain president's coffin stretched to 30 blocks November 24, prompting officials to keep the building open all night. On the 25th, a caisson bore the body in a procession that wound through Washington, D.C. and finally to the burial site at Arlington National Cemetery.

Cronkite was on TV. Then I walked home. My wife and our young kids were there. We learned he died, and we all cried. I said to my wife, "I'm overwhelmed. I'm going up the river to fish." I needed to be alone, walk along the stream banks. I called my dad, and he said, "We're all stunned. We're watching the teletype in the Senate Cloak Room."

What is appalling to this old cowboy is how a guy can be dead and they can reconstruct who he was. To see journalists come in and nose around. The guy is gone, and he can't say things are out of context. What a country. There'll never be a hero now. That's a disgrace. The journalism profession ought to be nailed for that.

DON HEWITT

I PRODUCED AND DIRECTED the first televised political debate. It was between Kennedy and Nixon. That was the worst night that ever occurred in American politics. It's the night politicians looked at television and said, "That's the only way to run for office." And television looked at politicians and saw a bottomless pit of advertising. From that night on, you can't get to be an officeholder in America without buying television time, and that means you can't run for office without promising favors to people who can put up the money for that television time.

I think about that more than the story of the makeup. Kennedy looked like Cary Grant on television. Nixon made the decision not to use the professional makeup artist. He looked like death warmed over. He was not feeling well, and when he got out of the car at the studio, he banged his leg and he was in pain. He didn't realize how important this night was. He thought it was another campaign stop. Nixon spent the day talking to union workers. Kennedy spent the day resting and preparing.

I was in the CBS newsroom when [the shooting] broke on the wires, and I remember the president of *CBS News* was away at lunch and they couldn't find him, so I ordered everybody on the air. I called Frank Stanton, president of CBS. I remember the secretary said, "He's in a very important meeting, and he asked not to be disturbed." I said, "Tell him by the time the meeting's over the president of the United States might be dead." He got on the phone within minutes and said, "Stay on the air!" Walter Cronkite went on the air and stayed there for 36 hours. Americans that morning did not go to church. They went to their television sets. Walter Cronkite single-handedly calmed this country down after the assassination. We relieved him at

his desk, and he went to his office and sat there with his head in his hands. He got a phone call from a woman who said, "You've got some nerve to cry over Jack Kennedy after the things you've said about him." And Walt said to her, "Lady, you're a goddamn fool," and hung up.

JEANE KIRKPATRICK

I WAS TRAVELING with my husband in southern Spain the summer after Kennedy's death, in the part of the country where they raise bulls. And there was a very pretty chambermaid who was scrubbing the floors on her knees after the children spilled something. The chambermaid asked where we were from, and I said, Washington. And she said, "Where Kennedy lived." It was really quite touching. It was a very remote place, and she was a simple, poor and hardworking person for whom John Kennedy was a very important figure.

He wasn't able to accomplish very much. He got killed too soon. I have no doubt that his legacy would have developed and become larger. Nobody confuses him with Abraham Lincoln or Franklin D. Roosevelt. Those were presidents who were justly deified through history.

I have a longstanding and serious professional interest in the relationship between personality and performance in political leaders. The quality of the man is enormously important to his leadership. Does he have to be a virtuous man to be an effective leader? I think there's a relationship, but it's not simple. It matters that John Kennedy was a womanizer, but it doesn't define his presidency.

GEORGE McGOVERN

I FIRST CAME TO KNOW HIM during a congressional battle to pass a labor reform bill in the late 1950s. He was a senator, and I was a congressman. His first executive order as president was to expand food assistance to the poor in the United States. He had seen the children of unemployed miners in West Virginia suffering from rickets and hunger and malnutrition. His second executive order was to create the Food for Peace office to deal with hunger and malnutrition, and he named me as director. It was the most immediately rewarding job I ever had.

I think he quickened pride and enthusiasm for the American political process and the operations of the government. He introduced a note of usefulness and energy.

The day he was shot, I was in the Senate. As I remember it, Ted Kennedy was presiding over the Senate, and I was sitting there listening, and Mike Mansfield, the majority leader, motioned for me to take over for Teddy. Mike Mansfield asked for unanimous consent to make an announcement that had nothing to do with the debate in process. He said the president had been shot—not killed, because he didn't know that at the time. I trudged back to my office, and when I got back my secretary was just sobbing. He had been shot like an animal in the street. I knew when I saw my secretary he had died.

HELEN VENDLER

THE DAY KENNEDY WAS SHOT I was teaching at Swarthmore, but I was driving to Temple University for a lecture by Harold Bloom when I heard it on the radio. I was on the streets of Philadelphia. What I do recall, which was extraordinary, was between the time I entered Temple University and by the time I left, flags had manifested themselves on every building around Temple. Everything was festooned with flags. It's only 40 years since he died, and it usually takes longer than that for an actual picture of a historical person to emerge, but I do think having a Catholic president elected did change the "electable ethnicities." I don't vote. Never. I remember the charm of those pictures of him with his children. It was nice to have a young family in view, so to speak. They were such a handsome family.

EUGENE CERNAN

I WAS A YOUNG NAVAL AVIATOR in San Diego, and I had just returned from flying jet aircraft off aircraft carriers in the western Pacific. I had been selected to join the Gemini and Apollo programs at the end of October in 1963. Within a month, he was assassinated. We wondered what would become of the space program. He had challenged us to reach out farther than we had reached before, and suddenly he was gone. Would anyone pick up that gauntlet? His challenge to send Americans to the moon—I always wondered whether he was a dreamer, a visionary or politically astute. He was probably all three. He had the political moxie to find something that all Americans could rally around. I think that's his biggest legacy—the Apollo program.

ARTURO RODRIGUEZ

WE WERE IN THE PLAYGROUND. I was 13. I was in a Catholic school, and the sisters came to us. It was in San Antonio, Texas. We said prayers and went home, and the whole family was glued to the TV.

When you walk into Latino homes today, you'll see three things on the wall: Cesar Chavez or something from the United Farmworkers Union. You'll see the Virgin of Guadalupe. And you'll see pictures of John F. Kennedy or Robert F. Kennedy. They're still held in high regard. They had interest in poor people and their issues, even though they came from wealth and had no real reasons to pay attention to us.

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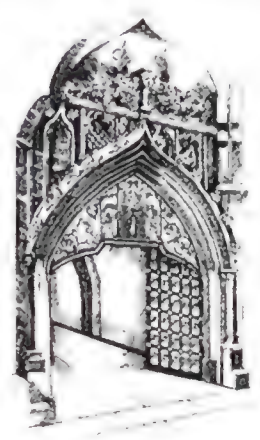

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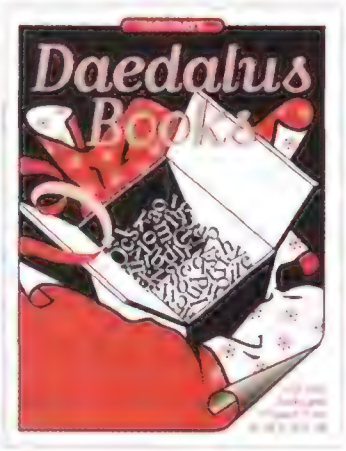

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Saving

Atchafalaya

A more than 70-year effort to "control" America's largest river basin swamp is threatening the Cajun culture that thrives on it ~ BY T. EDWARD NICKENS

"YOU GOT HIM, ALICE?" It's a little after midnight deep in the heart of Louisiana's fabled Atchafalaya Basin. Mike Bienvenu is yelling good-naturedly from the back of his 18-foot aluminum skiff. "You missed that last one, so if you want frog, you better have him good!" Dressed in camouflage, Mike's blonde, ponytailed wife hangs over the bow, arms buried in goo. For the past two hours, the Bienvenus have been on the lookout for supper, their powerful headlamps illuminating herons, white-tailed deer and the orange-red eyes of alligators. Now Alice grunts and rears back, gripping a foot-long bullfrog in her muddy fists. "I've been froggin' since I was 5 years old," she says defiantly. "I knew I had him."

The Basin, as locals refer to America's largest river swamp, is a near million-acre maze of picturesque meanders and quiet bayous in south-central Louisiana, just west of Baton Rouge. It's a fascinating, spooky, dangerous place, especially for those who don't know it. Fishermen drown, hunters get lost, trappers suffer violent mishaps. "Accidents happen here all the time," Alice Bienvenu says. "The sport fishermen are always in a hurry to catch a fish. They hit a log or something and fly out of their boat."

The Bienvenus, like most of their neighbors, are Cajuns, descendants of the French-speaking Acadians who were expelled from eastern Canada by the British in 1755 and subsequently settled here. Many depend on the swamp year-round for hunting and fishing, but they fear it all may soon come to an end. Silt is filling in the swamp, and private landowners are cutting off access to traditional fishing holes. Basin fisherman Roy Blanchard, 63, says, "It's a way of life that is now dying."

Not that the Atchafalaya isn't still swarming with critters. Gators 12 feet long share its murky depths with 80-pound catfish, venomous water moccasins and gaspergou, silver fish that make a loud "croak." Roseate spoonbills soar above woods filled with more than 250 other species of birds. There are crawfish by the millions, a handful of Louisiana black bears (a threatened subspecies) and ducks beyond counting.

Yet the Basin today is a mere shadow of what it once was. During the past several decades, it has been engineered into an artificial flood-control structure—a 125-mile-long chute, 15 miles wide, surrounded by 25-foot-tall levees. Its waters have been dredged and straightened. Much of what's left is choking in silt and blotched with stagnant ponds. "The Atchafalaya has suffered wave upon wave of degradation," says Oliver Houck, director of the environmental law program at Tulane University in New Orleans. Charles Fryling Jr., a professor of landscape architecture at Louisiana State University in Baton Rouge, agrees. "It's so big, it's easy to think there's nothing people can do to harm it," he says. "But we've cut down the trees, we're suffocating the crawfish and we've replumbed the natural flow so it practically works backwards."

Mike Bienvenu (left, crabbing; wife Alice, grading hides) says, "Nobody wants to save the Basin more than those who use it for a living."

The good news is, help is on the way. State and federal agencies have launched a $250 million project to restore the Atchafalaya to its former glory. One aim is to make it a magnet for tourism. Along Interstate 10 between Baton Rouge and Lafayette, a $5 million welcome and environmental-education center is slated to open early next year. Crews are repaving miles of rutted levee roads and clearing new canoe, bird-watching and biking trails. Sandra Thompson, who heads up the state's Atchafalaya Basin Program, says the swamp would be lost otherwise. "If we don't move the sediment out," she says, "it will eventually fill the Basin in."

The idea is to make the swamp work the way it used to—like a colossal sponge. For untold centuries, the Basin soaked up the Mississippi River's annual floodwaters and distributed them throughout its river, bayous, lakes and marshlands. That brought much-needed nutrients to fish and wildlife and laid down rich natural levees of soil where oak trees can grow. "It was a beautifully balanced system," says Greg Guirard, a crawfisherman, writer and photographer who lives near St. Martinville. "Water flowed in and spread all around. There

T. EDWARD NICKENS, a North Carolina journalist, is an avid paddler of cypress swamps. He last wrote for SMITHSONIAN *about efforts to re-create the schooner* Spirit of South Carolina.

The Old River Control Structure (top) diverts Mississippi River water into the Atchafalaya River. After the U.S. Army Corps of Engineers constructed levees around the Basin and built the structure, silt deposits turned lakes (above, Grand River Flats) into bayous.

Contemporary artist Robert Dafford's 30-foot-long mural, *The Arrival of the Acadians in Louisiana*, hangs in the Acadian Memorial in St. Martinville, Louisiana. Descendants of refugees who were exiled from Canada in the 18th century posed for the painting.

was nothing to hold it back or hem it in."

By the time the Acadians arrived in the 1760s, France had ceded Louisiana west of the Mississippi to Spain; Britain controlled the lands east of the river. Although Spanish officials were only too happy to welcome Catholic settlers with a grudge against the British, the Spaniards could not afford to be generous. "Each family received one land-clearing implement—a saw, ax or hatchet—one rooster, six hens, a gun and ammunition, and enough corn to last for approximately three months," says Carl Brasseaux, a historian at the University of Louisiana. "Then they were turned out into an alien land."

The first groups settled along the Mississippi River and in the present-day St. Martinville area, while later arrivals mostly scattered into the prairies west of Lafayette or on the high grounds near Bayou Lafourche, which formed the Basin's west and southeast boundaries. The prairie Acadians raised cattle. The so-called bayou Cajuns grew cotton and sugar cane.

For decades, the Atchafalaya's mysterious interior repulsed all but the most intrepid hunters and trappers. By the 1840s, a few small communities of Acadians, free blacks and others had cropped up on ribbons of high ground, and steamboats plied regular seasonal routes. But the main body of the Atchafalaya remained impenetrable—a "weird and funereal" place, in the words of one visitor.

Mishaps were common, and medical attention was hard to come by. Fishermen injured by sharp fish spines often got blood poisoning. Says Jim Delahoussaye, a 65-year-old biologist who lives in the middle of the Basin and fished it commercially for years: "When they saw that red line crawling up their arm or legs, they took 'whisky roaches,' which was the cheapest whisky you could find with drowned black roaches in it. They would take that liquor by the teaspoonful and they would be cured."

In the chaotic aftermath of the Civil War, thousands of dispossessed people turned to the swamp for survival, at last penetrating its deepest recesses. The "swampers" killed, cut and collected anything that could be sold. Hordes of pickers pulled mats of Spanish moss from trees with hooked wooden poles. After curing outside in huge heaps, the moss was baled, ginned and peddled for as little as a penny a pound as mattress and upholstery stuffing. Muskrats and gators were trapped and shot for their hides. Fishing became a big business, and hunters shipped a quarter-million ducks to New Orleans some years.

Critics of the more than 70-year project to use the Atchafalaya Basin for flood control say the misguided efforts can be traced to the 1927 flood that killed hundreds.

Little by little, local settlements grew. By the mid-1870s, one of the largest towns, Bayou Chene, boasted a population of 450 and several saloons. In the early 1900s, houseboats and motors increased the swampers' range, and by the early 1930s, nearly 1,000 full-time fishermen were dropping their lines and nets in the Atchafalaya. Perhaps twice as many part-timers headed for the bayous after toiling all day in sugar cane fields or on cattle ranches.

There was almost no limit, it seemed, to the ways a resource-

Roy Blanchard (in Lake Fausse Pointe) once made his living fishing the Basin but now works part time in a motel. "I got two boys, and over the years I saw this swamp going down real fast," he says. "So I told them that they got to do something else besides fishing for a living."

ful person might survive. In summer, for example, many a swamper collected snapping-turtle eggs from bayou banks where turtles nested, frequently in the company of gators. "First you had to slide them gators out," recalls Raymond Sedotal, a 79-year-old Cajun from Pierre Part. "Most of the time they'd sleep, but if they woke up, then, boy you had *somethin'*."

Water, the lifeblood of the swamp, proved its undoing. In 1927, a historic flood poured through the lower Mississippi River valley, inundating 16 million acres in Kentucky, Tennessee, Arkansas, Mississippi and Louisiana, destroying 41,000 buildings and killing hundreds. In the Basin's main river, also called the Atchafalaya, floodwaters rose seven feet above its natural levees. Swamp residents threw together log rafts for their livestock, then fled. According to local legend, a goat left stranded in the Methodist church at Bayou Chene survived for weeks on hymnals and wallpaper.

Under intense political pressure to prevent a repeat of that catastrophe, the U.S. Army Corps of Engineers—which by law is charged with dredging harbors, managing dams and keeping the nation's rivers under control—came up with a mind-boggling scheme: to transform the entire Atchafalaya Basin from a sponge that absorbed floodwaters into an emergency valve that flushed them out. Whenever Old Man River went on the rampage, the reconstituted swamp would move water downstream quickly.

Since 1928, the Corps has spent almost $2 billion on flood control in the Basin, including enclosing more than a half-million acres of swamp with 450 miles of levees. Dozens of natural bayous have also been sealed off, and more than 100 million cubic yards of earth have been dredged. A huge concrete structure built at the junction of the Mississippi and Atchafalaya rivers enables the Corps to divert some of the Mississippi into the Basin. That's good for Baton Rouge, New Orleans and the dozens of chemical plants crowding the Mississippi's lower banks because it means less flooding during times of high water. But the reengineered Basin no longer retains the water it needs to survive; instead it is flushed into the Gulf of Mexico.

Oil and gas development have only made matters worse. Beginning in the 1940s, hundreds of miles of pipelines and navigation canals were punched through the Basin's woods and across its swamplands, interfering with natural water flow and trapping huge piles of sediment. Lakes shriveled, wetlands began drying up and, in many areas of the Basin, crawfish harvests declined.

Last year's harvest of wild crawfish, Louisiana's culinary delight, was about half what it was in the 1980s and '90s. Locals blame the decrease on the silt that is filling in the Basin.

What corn is to Iowa and the lobster to Maine, the crawfish has become to Louisiana—not just a lucrative cash crop but a state symbol as well. The lowly crustacean's improbable rise to culinary stardom is of relatively recent vintage. In the 1940s, Cajun restaurateurs began experimenting with tasty dishes featuring boiled crawfish, and in no time at all crawfish became wildly popular with natives and visitors alike. Soon every boat

in the Basin big enough to hold a four-foot wire crawfish trap was being pressed into service.

After crawfish farming in man-made ponds started up in the 1960s, Louisiana's overall annual harvest typically rose to about 80 million pounds. In just two years of harvesting wild crawfish during the 1970s, swamper Roy Blanchard made enough money to build a house and pay cash for a new truck.

MIKE BIENVENU started crawfishing commercially in the swamp right after he graduated from high school in St. Martinville in 1973. At that time and throughout the '80s and early '90s, he recalls, "It was nothing to catch 2,000 pounds of crawfish in a day." But before long the combined effect of all the levee building and canal digging began to take its toll. Last year the wild crawfish harvest was down to about 14 million pounds, half the average annual catch. Although Mike and Alice continue to set out more than 1,000 traps at a time, their daily catch has dwindled to less than 600 pounds. "The natural crawfish habitat is ever-shrinking," says Tulane's Oliver Houck. "It's impounded, it's silting up."

The Atchafalaya Basin (dark green in this satellite image, with the Atchafalaya River running through its center) is almost a million acres of bottomland woods and swamp.

Bringing back the crawfish means bringing back the free-flowing water. In 1986, after years of legal and political wrangling, Congress gave the agency that had done so much to damage the Atchafalaya a bold new assignment: fix it. And now after much planning, the Corps, working with state and federal agencies, is ready to restore the natural water flow by unplugging bayous and eliminating sediment by cutting gaps into high banks along pipelines and canals. The agency is also trying to preserve more than 337,000 acres of wooded swamp land by buying up environmental easements to control development.

There's more at stake than crawfish. Louisiana is betting that tourism will be the swamp's next big boom. Not only is the state spending $85 million on boat ramps, recreational-vehicle facilities and hundreds of miles of trails; a regional group is promoting travel in the so-called Atchafalaya Trace Heritage Area, hoping to coax visitors into Cajun dance halls, restaurants and historic sites. Some officials believe visitation could double in the next 15 years.

But if it's easier for tourists to get into the Atchafalaya these days, it's harder for locals who've been using the place for generations. That's because large private and corporate landowners are selling exclusive leases to hunting clubs and individuals and keeping just about everybody else out. Rudy Sparks is a vice president of Williams Inc., a lumber company that manages oil and gas leases on some 35,000 acres of Basin lands. "We've had to do this to manage the lands in a sustainable way," he says.

"But access to the Basin is one of the Cajuns' last links to our heritage," says Patrick Deshotels, a curly-haired biologist with the state Department of Wildlife and Fisheries. "So much of the bayou culture revolves around this ecosystem—squirrel hunting, crawfishing, going to houseboats with your kids. If we can't even get in there anymore, then that part of our culture is lost."

As the head of a local crawfishermen's group, Bienvenu often attends meetings like the one held on a warm night not long ago in Catahoula, by the Basin's west levee. In a fishing camp, 15 crawfishermen sat, arms crossed and caps pulled low over their brows, telling of padlocked iron gates across bayous they've fished for years and of hand-lettered signs warning, "Keep Your Ass Out." There were stories of harassment. "They threatened to throw us in jail until we filed a lawsuit," Bienvenu says. All he and his fellow fishermen want, he insists, is to do "what we've always done."

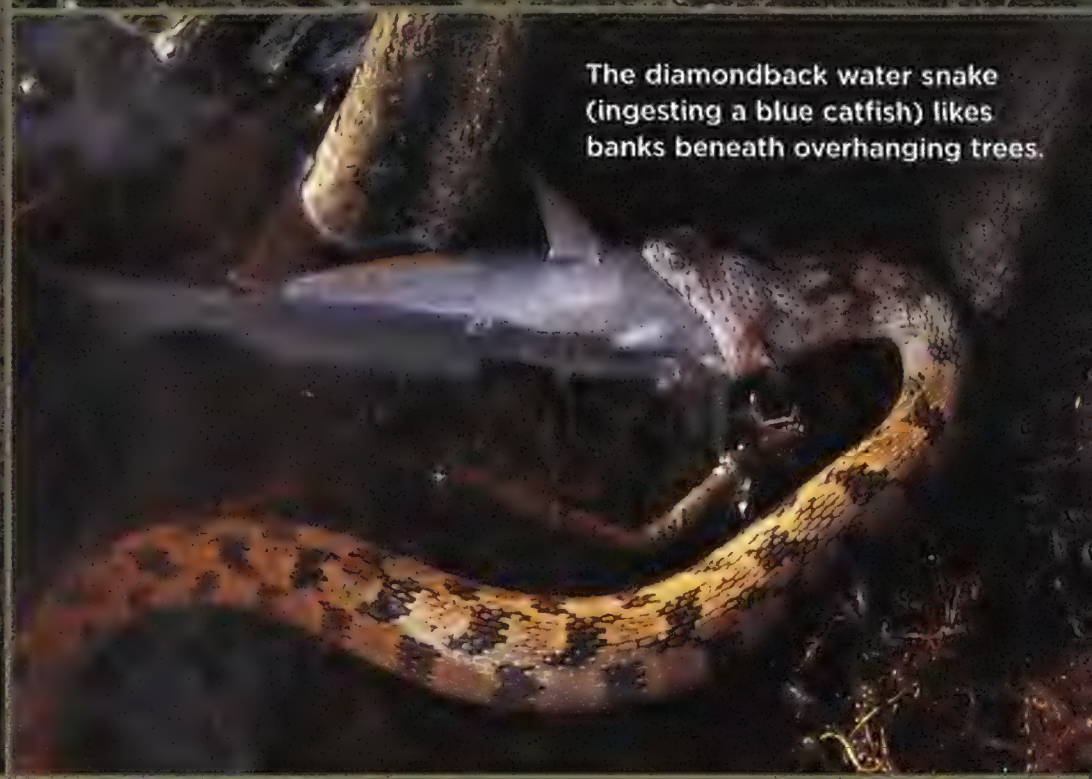
Most Cajuns hope that restoration of the Atchafalaya will grant crawfishermen that fond wish—to continue fishing the swamp as their ancestors did—but many, like Roy Blanchard, worry that it may be too late. Early on a cool, quiet morning, he slips his skiff into Lake Fausse Pointe, a 6,000-acre swath of water and swamp woods adjacent to the Basin. He steers through serpentine channels into open water, where rafts of white pelicans take to the air. "Oh, yes, boy," he tells his companions. "This is the place to see what the Basin used to be."

For nearly four decades, Blanchard worked with his wife, Annie, setting gill nets, catfish lines and crawfish traps. A few years ago, he gave it up and took a job at a motel. Now he returns to the swamp to hunt, and uses his boat, modified with extra seats, for tourist trips. "As for making a good living out here in the Basin," he says, cutting the motor in a grove of soaring cypress trees, "it's almost gone." ○

CRITTERS OF THE ATCHAFALAYA

The fashion trade once valued the great egret's plumes.

More than 30,000 alligators, no longer endangered, are slaughtered for hides and meat each year in Louisiana.



The diamondback water snake (ingesting a blue catfish) likes banks beneath overhanging trees.

Roseate spoonbills regurgitate mud-dwelling invertebrates, such as worms and snails, for their offspring.

Master Glass

From opera halls to neighborhood movie theaters, Philip Glass attracts an enormous audience—many of whom have never listened to classical music ~ BY HARRY SUMRALL

WE HAD COME TO HEAR THE FUTURE.

It was a sunny afternoon in the spring of 1974, and my band and I, all jazz players, had ventured to the Kennedy Center in Washington, D.C. to hear what was being touted by critics and writers as the future of classical music. The style was called minimalism, and its guru was a guy named Philip Glass.

As we sat down on the floor of an upper lobby in the vast performing arts complex, along with about 200 other seekers of a new musical faith, the future did not look particularly auspicious. For starters, there was the floor itself: no seats, not even carpeting to sit on. Then there was the stage—or, rather, there wasn't one. Apparently, the Philip Glass Ensemble was going to perform on the floor. Their equipment didn't inspire much confidence either: a couple of small amplifiers, a sax, a microphone and a pair of gray vinyl Farfisa electric organs, the kind used by Sam the Sham & the Pharaohs on their rock classic, "Wooly Bully."

Something didn't seem right, here.

The future of classical music arrived in a wrinkled shirt, faded dungarees and worn sneakers, his hair akimbo and his mood nonchalant. The ensemble followed with the same tattered look and manner, as if they'd all just tumbled out of a Manhattan loft and were headed to the nearest garage to practice a set of Velvet Underground covers. They looked less like the future of music than they looked like . . . *us*.

Now seated at the Farfisa, Glass nodded to the ensemble and the music began. But instead of stating a theme and moving through variations on it, as would a piece by Bach or Beethoven, the sounds seemed frozen in time and space. What sticks in my memory is a series of repeating phrases: *dee-doo, dee-doo, dee-doo* beeped from Glass' Farfisa, slowly giving way to something like *doo-dee, doo-dee, doo-dee* from a soprano sax. Then a voice joined in, singing syllables: *doo-doo-dee-dee-doo, doo-doo-dee-dee-doo, doo-doo-dee-dee-doo.* The music went on and on, like a Mondrian painting come to life in sound, lines of notes closing and intersecting in incessant rhythm, punctuated by primary-colored blocks of harmony.

And as it went on, glacially changing its beats and chords, so, too, did the range of reactions shift in the listeners. At first, we felt shock at the sheer simplicity, which immediately snared the ear. Slowly, shock gave way to resistance against the newness of it all, then acceptance, and, finally, the rapture of trance, the music forcing thoughts out and feeling in.

"I remember that day at the Kennedy Center," Glass tells me almost 30 years later. "I remember it because, afterward, we told everyone that we'd played the *Kennedy Center*." He laughs. "We didn't mention that it was in the lobby! It just sounded so prestigious to say we'd played there. At the time, we were playing in lofts and clubs and parks, anywhere we could. Everything mattered then." A pause. "It *still* matters."

The composer is holding court on a black leather couch in a digital recording studio amid a warren of offices, collectively dubbed Looking Glass Studio, on lower Broadway in Manhattan. He's just turned 66, and his fourth wife, Holly, has recently given birth to the latest twig on the Glass family tree—a son, Cameron. (He has two adult children, Zachary and Juliet, from his first marriage.) Later in the week, he says, he will complete his 20th opera, *The Sound of a Voice* (which premièred in June in Cambridge, Massachusetts), and earlier in the day, he learned he had received his second Oscar nomination, this time for the score of the Nicole Kidman-Meryl Streep-Julianne Moore tour de force, *The Hours.* (The first was for the score of the 1997 Martin Scorsese film *Kundun.*)

He doesn't look the part of the *enfant terrible* anymore; the hair, still akimbo, is graying. His eyes are framed by delicate rimless glasses. His face hasn't changed much, although it is clearly yielding to gravity. The rumpled clothes remain: a brown polo sweater, casual pants and sensible leather walking shoes. Only now his appearance reinforces the carelessly confident demeanor of what he has become: arguably America's most prominent contemporary classical composer.

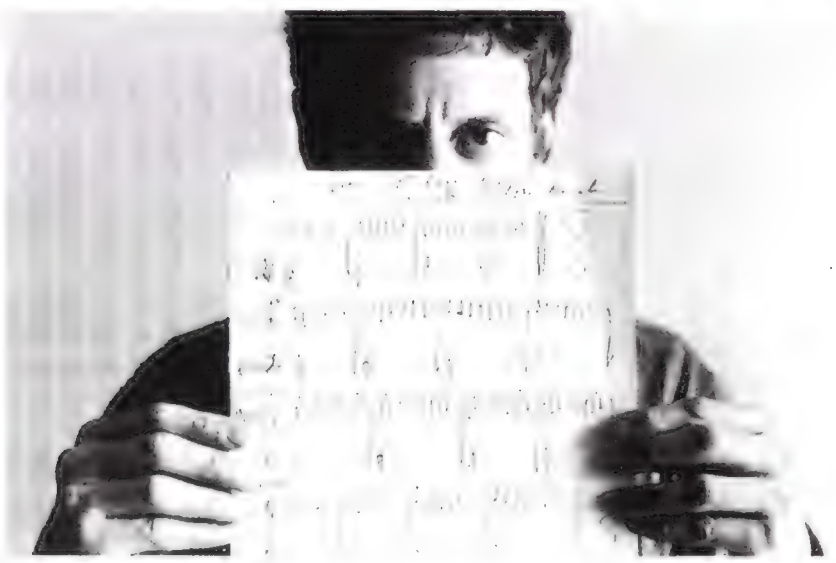
"With minimalism, Philip Glass invented a new kind of music that attracted an enormous group of people who had never listened to classical music before and, in some cases, who still only listen to *his* form of it," says Joseph McLellan, classical music critic emeritus of the *Washington Post*.

Glass and minimalism appeared at a curious moment in music history, when listeners of various persuasions suddenly seemed to have been cast adrift. After taking us on a magical tour, the Beatles had broken up. The bluesman from Mars, guitarist Jimi Hendrix, and the sax man from a jazz universe of total expressive freedom, John Coltrane, had died. And when we turned to the world of contemporary classical music, we found it still stuck in a decades-old malaise of ab-

America's most famous living classical composer, Philip Glass (left, in 2001) has moved past the minimalism movement he led.

ANNIE LEIBOVITZ / CONTACT PRESS IMAGES

"I studied everything" at the University of Chicago, says Glass (his student ID card, right). But at Juilliard (above), he focused on composition.



Glass' hypnotic music caught the ear of 1970s avant-garde fans (above, at a 1973 SoHo loft concert). *Einstein on the Beach* (Glass holds the 1976 score) made him more mainstream.

stract, dissonant, atonal music made by composers like the didactic Pierre Boulez and the slightly loopy Karlheinz Stockhausen, who once instructed his musicians to "play only when one has achieved the state of nonthinking."

Enter Philip Glass.

"What is minimalist music?" he asks rhetorically. "It's a term invented by journalists. I never liked the word, but I liked the attention!" More seriously, he goes on, "I would say that the term became a kind of shorthand for people who were making music that was a radical return to tonality, harmonic simplicity and steady rhythms."

Minimalism bridged seemingly conflicting musical categories. To younger pop types, it was cool and calculated and it had a great beat—even if you couldn't dance to it. To more serious jazz and classical types, its intellectual gravitas stimulated the mind as well as the ears. And to all involved—from scruffy proles, like my bandmates and me, to cultivated swells—it was actually listenable.

"We changed the course of music in the latter half of the 20th century," says Kurt Munkacsi, who played that day at the Kennedy Center and who has continued to work with Glass as a producer over the years. "Part of that had to do with the fact that Philip spoke to a new generation in its own language. When the ensemble was formed, it was completely modeled on a rock 'n' roll band, with the high volume, the steady beats and bass lines."

Two years after the Kennedy Center gig, Glass and director Robert Wilson astounded the world with their revolutionary concoction, *Einstein on the Beach*, which combined the former's minimalist score with the latter's avant-garde theatrical staging. Four years later, Glass added Romantic-era flourishes to his music in the 1980 opera *Satyagraha,* which transformed him into a fully acknowledged Modernist master. Over the next two decades, that status enabled him to pursue musical, theatrical and film projects from the world's preeminent concert and opera halls to the red carpet of the movie world, where, in addition to his Oscar nominations, he also earned a Golden Globe in 1999 for his score for *The Truman Show*.

"The thing is, I've never had a high art-low art set of standards," Glass explains. "I've spent my life in the avant-garde. But I think that every art form is honorable, and I never look down on anyone who enjoys what they're doing. Musically, I love everyone from [R.E.M. vocalist Michael] Stipe to [opera singer] Jessye Norman. I got that from my father. He owned a record store, and he loved everything in there."

In fact, it was from the castoff stock in his father Ben's store that Glass first encountered much of the music that has formed the basis of his work. When certain records did not sell, Ben Glass took them home and asked his children to listen to them in an effort to figure out why. In this way, Glass was introduced to such works as Beethoven quartets and Schubert sonatas.

Unlike academic composers, who tended to closet themselves away, Glass formed the Philip Glass Ensemble (above, playing the soundtrack to the film *Anima Mundi*) and "performed with it like a rock or jazz musician," says frequent collaborator David Harrington.

"It was a great way to become familiar with music," Glass says. "Listening to all these different pieces allowed me to see that music is about quality, not categories."

Born on January 31, 1937, in Baltimore, Glass began studying music at age 6. He took up the flute but abandoned it after a few years, frustrated by the lack of pieces written for it in the classical repertoire. He was also growing bored with the staid musical atmosphere of his hometown. So, at 15, after passing an entrance exam, he enrolled at the University of Chicago, where he majored in mathematics and philosophy.

"I was very fortunate that the University of Chicago was militantly liberal arts," he says. "I didn't specialize; I studied everything: history, biology, social studies and the arts."

Graduating at age 19, he made his way to New York's fabled Juilliard School of Music, where he studied composition with such illustrious teachers as Vincent Persichetti. There, his tastes evolved away from the dense and dissonant music of Austrian composer Arnold Schoenberg, which had dominated musical thought and practice in the first half of the 20th century, and the trendy music of Boulez and Stockhausen.

HARRY SUMRALL, a composer and journalist, is also the founder and editor of the classical music Web site www.RedLudwig.com.

Instead, he turned toward American composers, most of whom were melting-pot mavericks. The granddaddy of them all, Charles Ives, used military marches, church hymns and clashing time signatures to achieve his creative visions—at times, all in the same work. Aaron Copland borrowed folk songs like the Shaker melody "Simple Gifts" and turned them into fresh, modern works like *Appalachian Spring*.

But Glass had yet to combine his myriad influences into a voice of his own. He set out for Paris in 1964 to study with the renowned composition teacher Nadia Boulanger, who had guided a whole generation of American composers, including the young Copland. Instead of helping Glass figure out who he was, she made him realize what he wasn't.

"One of the most important things I learned from Boulanger was that I didn't have the temperament to be a teacher," Glass says, laughing. "It just wasn't in me. I looked at people like John Cage, who made his living from composing and playing, and I thought, *I don't have to teach!*"

At the time, in the late 1950s and early '60s, many composers subsidized their creativity by teaching at universities and conservatories, which tended to isolate them and their music from the culture at large. That would not be a problem for Glass. "The American arts scene thrives on the mar-

ketplace," Glass says. "When I formed the ensemble in 1967, the idea was that it would be part of that marketplace. I wanted to be independent, to put myself in a position where I could create what I wanted without having to answer to a council of elders about whether I was a serious composer."

The retailer's son, who had paid his way through college and music school by loading planes at the airport and operating a crane at Bethlehem Steel, went about achieving his goal with atypical—for a composer, at least—practicality. He booked enough gigs to pay each musician a salary for part of the year, which allowed them to collect unemployment when they weren't playing. After a few years, when he had made his name, and his performance fees increased, he added health benefits. Years later, he even threw in a 401(k) retirement plan.

"I found that unemployment was an excellent way for the government to support the arts," he says with a wink. "The fact is, I like to work. I had day jobs from the age of 15 until I turned 41. I was a member of the steelworkers' union and the cabdrivers' union before I became a member of the musicians' union! I've always tried to be self-sufficient—and so has the ensemble. We've never been funded by a foundation or a charity."

One of his jobs would profoundly influence his music. A gig in Paris converting a score by sitar virtuoso Ravi Shankar into Western notation led to a fascination with Indian music and a sojourn in India. Glass was drawn to the droning, trancelike Indian ragas, which evolve over hours-long or all-night performances into seemingly simple (but, in fact, immensely complex) dialogues of themes and rhythms. He also discovered the reedy textures and vivacious beats of Middle Eastern music. These would all combine with the classical music of his past to form the music of his future: minimalism.

Returning to New York in the mid-1960s, Glass plunged into the city's avant-garde music scene, which was already on its way to a minimalist aesthetic. In 1964, American composer Terry Riley had shocked musicians and audiences with his epochal work, "In C," which consisted of 53 musical fragments, or cells, that any number of musicians—using any kind of instrument, including their voices—played as quickly or as slowly and for as many times as they wanted, until all musicians had played all 53 cells. The result was a kind of Middle Eastern mystical-musical blending of endlessly echoing motifs. Other composers, such as Steve Reich, reduced music to unadorned rhythms produced by drumming or clapping.

What these innovators shared was a desire to take classical music out of the conservatory and return it to the real world, to make it less a theoretical exercise than a human experience. They made music that was strongly rhythmic, hypnotic and simple to the ear. Simple, but not easy. *Washington Post* classical music critic Tim Page once described Glass' music as "sonic weather that twisted, turned, surrounded, developed."

Gradually, word about the new movement spread outside New York City. In 1971, minimalism reached the rock world when the Who's Pete Townshend used repeated synthesizer riffs on songs like "Won't Get Fooled Again." By the time Glass assembled 1974's "Music in Twelve Parts"—the piece he played at the Kennedy Center—his name had become synonymous with the movement.

Glass' status seemed confirmed in 1976, when he and Robert Wilson staged *Einstein on the Beach* at New York City's Metropolitan Opera House before standing-room-only audiences. The four-and-a-half-hour work (sans intermission) was an amalgam of performance art, opera and multimedia spectacle. Dramatist Wilson's jump-cut staging featured trains, a bed, a spaceship and the scientist playing a fiddle. Each recurring image had corresponding music, often a chorus singing numbers or solfège syllables (do, re, mi, etc.) over a foundation of rapid arpeggios—the notes of a chord played one at a time. "A listener . . . reaches a point, quite early on, of rebellion at the needle-stuck-in-the-groove quality, but a minute or two later he realizes that the needle has not stuck, something has happened," critic Andrew Porter wrote in the *New Yorker*. Wrote Page: "Some listeners were transfixed . . . while others were bored silly." The event made Wilson and Glass instant stars.

"It was a radical evening," says Michael Riesman, the music director of the ensemble, who conducted the *Einstein* performances. "It transformed Philip from a fringe New York art-world character into a legitimate composer in the eyes of the world."

But like Stravinsky and the Beatles, Glass seemed compelled to move beyond the style that brought him fame just as the public caught up with him. "For me, minimalism was a platform that I pushed off from like a swimmer," he says. "From it, I leapt as far and as deep as I could go. Writing for the theater has allowed me to address issues of the arts: science, religion, politics, the whole range of human society."

The first result, in 1980, was the opera *Satyagraha*, which premièred to sold-out audiences in Rotterdam. In this exploration of Mohandas Gandhi's philosophy of nonviolent resistance (a loose translation of satyagraha), many of the composer's interests converged—India, history, social justice. The libretto was in Sanskrit from the Hindu religious text, the *Bhagavad Gita*. The stage action depicted scenes from Gandhi's years in South Africa, "witnessed" by figures that evoked his past, present and future—his friend Leo Tolstoy, the Indian poet Rabindranath Tagore and Martin Luther King Jr. Glass scored the work for conventional orchestral instruments. And the music changed too: he created stirring Romantic-era, nearly melodic theme lines that soared above repeated figures. "In harmony with his subject," wrote critic McLellan, "Glass has adopted a new, nonviolent style in his music."

Glass expanded on this mesh of history, social consciousness and music in other "portrait operas," such as 1984's

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Akhnaten, about the Egyptian Pharaoh who rebelled against the religion of his time and espoused a monotheistic god, and in 2002's *Galileo Galilei*, which examined the personal and intellectual trials of the astronomer who took on the religious establishment and laid bare the universe to Renaissance minds. As in *Einstein* and *Satyagraha*, Glass chose as subjects, he once wrote, "men who revolutionized the thoughts and events of their times through the power of inner vision."

He has always welcomed collaborators. With choreographer Twyla Tharp, Glass created *In the Upper Room*. He wrote *1,000 Airplanes on the Roof* with playwright David Henry Hwang. On 1986's *Songs from Liquid Days*, Glass flirted with the pop world, composing for words provided by songsmith Paul Simon, among others. In 1990, he closed a circle of sorts with *Passages*, a collection that mixes Indian and Western themes, which he composed with Shankar. In 2000, he worked with his first wife, theater director JoAnne Akalaitis, on a treatment of Franz Kafka's book *In the Penal Colony*.

Perhaps his most accessible works are his soundtracks to films. He recently completed a 20-year-long collaboration with director Godfrey Reggio on the "Qatsi" trilogy of art-house movies (the films are titled in Hopi: *Koyaanisqatsi*, *Powaqqatsi* and *Naqoyqatsi*). In these, Glass' frenetic music blends with images of the impact of urbanization and technology on humans and the earth. Errol Morris called Glass' score for Morris' 1988 murder documentary, *The Thin Blue Line*, "the single most important element" of the film. (Glass also provided the music for Morris' new film, *The Fog of War*, on former Secretary of Defense Robert S. McNamara.)

While the Oscar eluded Glass again for his recent soundtrack for *The Hours*—with at least one critic disparaging the score as "browbeating [and] melodramatic"—many noted the crucial role the music played in the film. In fact, Michael Cunningham, author of *The Hours*, wrote, "Glass can find in three repeated notes something of the strange rapture of sameness that Woolf discovered in a woman named Clarissa Dalloway doing errands on an ordinary summer morning." And there's another similarity, says Cunningham: "The last 30 years have served to move Glass in from the margins, just as time has moved Woolf from aberration to mainstay."

"That is the great thing about getting older," says the composer. "It gives you a sense of perspective that is the doorway to wisdom. When you think—or you are told—that you are the 'future of music,' you're probably not."

To listen to samples of Philip Glass' music, visit www.smithsonianmag.com and click on "Master Glass."

Glass' diverse interests and collaborators testify to his wide range. From top: Singer Linda Ronstadt performed on 1986's *Songs from Liquid Days*; his opera *Galileo Galilei* debuted in 2002; Glass (with wife Holly) won an Oscar nomination for *The Hours*; his opera *The Sound of a Voice* premièred this past June.

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Crash Junkie

Flight instructor Craig Fuller scales mountains, combs deserts and trudges through wilderness to track down old airplane wrecks – BY REED KARAIM

Wreck chasing "combined a lot of things I was interested in—hiking, history, planes," says Fuller (right, with fellow hobbyists, from left, Jim Fusco and Dave Peterson).

When we finally found the AT-17B Bobcat, it appeared to be little more than a tangle of rusted metal. "People think they're going to find these airplanes that look like you can fly them out of there," says Fuller, "and usually they look a lot worse than this."

WE'VE BEEN SCRATCHING and crawling our way up a canyon in Arizona's Chiricahua Mountains for more than two hours, and we still have no real idea where we're headed. The July temperature is about 100. We're all dirty, and some of us are bleeding in spots. What we're looking for is really nothing more than junk, the remains of a long-lost plane.

I'm beginning to doubt this could possibly qualify as a "fun hobby" when I see Craig Fuller, a boyish-looking 34-year-old, standing on a rock up ahead surveying the scene. "Once again, we have determined where the airplane is *not*," he announces with mock gravity, breaking into a smile that says there's no place he'd rather be.

Fuller loves plane crashes. But before you write him off as some sort of cheerful ghoul, I should add that it's *old* plane crashes that Fuller loves. He's part of an unusual band of enthusiasts known as wreck chasers, although he doesn't care much for the term. Wreck chasers are guys—they do seem to be almost all guys—who track down the crashed remains of old airplanes, mainly military aircraft. These planes are either ones the government long ago stopped looking for or, more often, found and decided to leave alone because of the remote locations. Most date from the 1950s or earlier. Today the U.S. military usually cleans any crash site thoroughly, even replacing soil contaminated by jet fuel.

There's a surprising number of wrecks still out there. Nearly 22,000 U.S. Army Air Forces planes crashed in the United States during training for World War II alone; B-24 Liberators, B-17 Flying Fortresses, P-38 Light-

nings—all the famous warbirds from that era—along with training aircraft and even some fighter jets, left their remains in remote parts of the Southwest, where most pilot training took place. If you were once a young boy of a certain kind, you had models of many of these planes hanging from your ceiling. I was one of those boys, and when I heard about wreck chasing, I knew I wanted to give it a try.

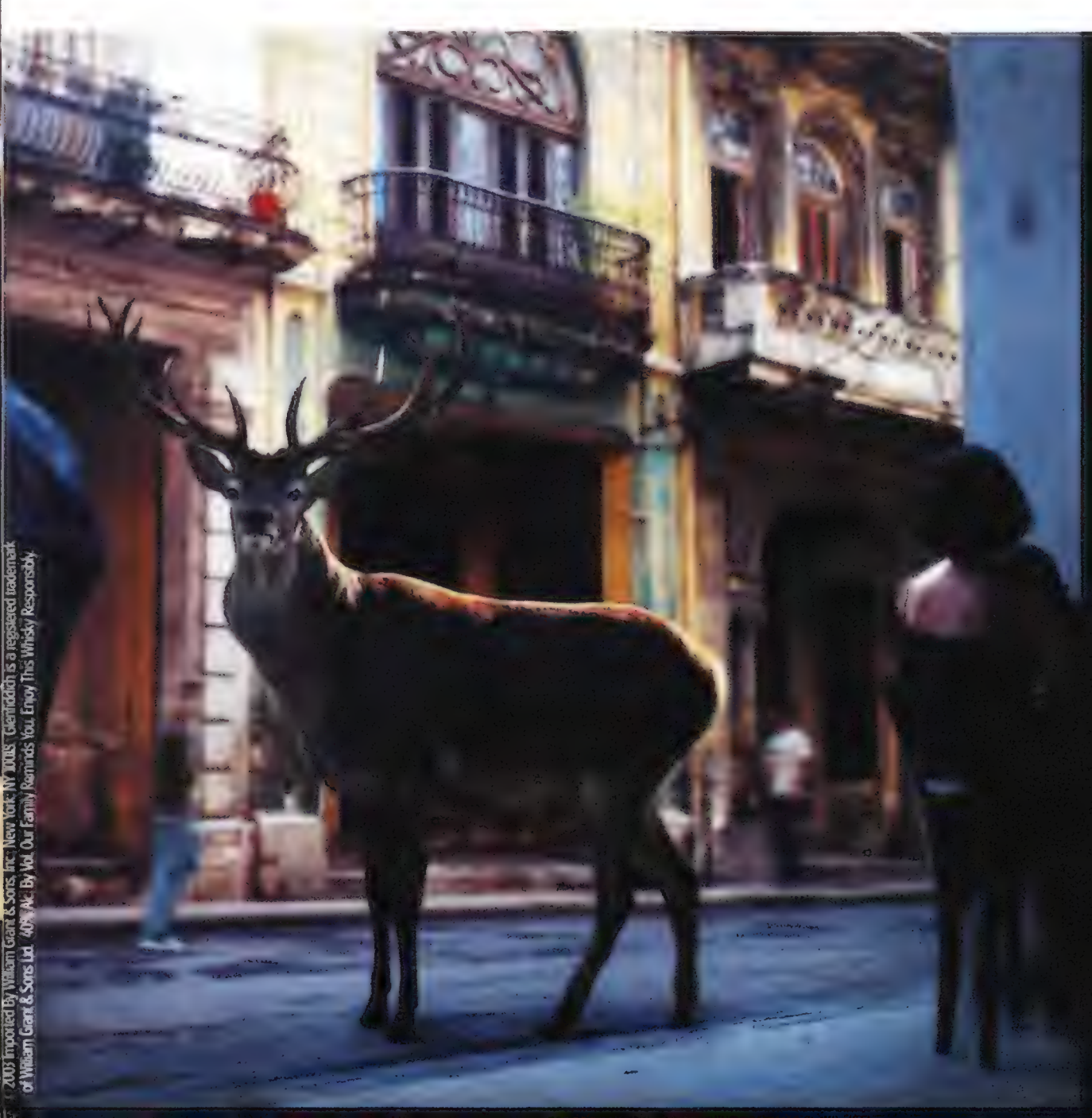
This led me to Fuller, a flight instructor for Phoenix-based Mesa Airlines, who may be the most devoted wreck chaser around. Fuller has been hiking into the wilderness in search of wrecks since he was 14 and heard about the remains of a P-38 in the mountains near his boyhood home in Santa Rosa, California. He found that wreck, brought back pieces of it, made a report to the local historical society and was hooked. "It just combined a lot of things I was interested in," he says, "hiking, history, airplanes."

While studying to become a pilot at Embry-Riddle Aeronautical University in Prescott, Arizona, Fuller flirted with the idea of becoming a crash investigator, but decided that was too much like being a glorified insurance adjuster. To his delight, though, he found that the state was full of old crashed planes and people who enjoyed hunting for them.

He's been to more than 250 wrecks since he found that P-38 back in 1984. He's looked for planes up and down the Pacific Coast and across the Southwest, climbing mountains, scouring deserts, once even trying to haul scuba equipment by hand up to a remote alpine lake in Nevada. He sometimes searches alone, but more often hooks up with other wreck chasers, members of a far-flung community that stay in touch through the Internet.

Fuller, who is single, lives in Mesa, Arizona, outside Phoenix, on a quiet street in a comfortable ranch-style house that serves as a kind of museum to his hobby. Photographs and even actual pieces of planes decorate almost every room, from the hunk of fuselage from an AT-6 Texan training plane in the living room to the collection of instrument faces in his office. He once had sections of six AT-6s—including wings and a tail—in his backyard. "I had this idea I was going to restore one," he says sheepishly, "and I thought I'd use the others for parts."

Shelves on the walls of his office hold roughly 160 two-inch-thick white binders documenting crash sites across the Western United States—a trove of photographs, maps and old news articles. But his real treasure is in his desk: the official crash reports for almost every accident involving planes belonging to the U.S. Air Force and its predecessors from 1918 through 1955 on more than a thousand rolls of microfilm. Each roll has 2,000 to 3,000 pages, which means Fuller has two million to three million pages of documented disaster.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The twin-engine AT-17B Bobcat was used during World War II to train pilots.

The rolls cost him $30 a piece. This explains why he has the only microfilm reader I've ever seen in someone's home. "And two microfilm printers," he says. "Everyone should have a spare."

In 1998, in an effort to recoup some of the $30,000 he spent on microfilm, Fuller began selling accident reports to other crash junkies. His collection quickly made him a clearinghouse for fellow enthusiasts. The day Fuller and I went to the mountains, we met up with two of his buddies: Jim Fusco, a wiry 53-year-old maintenance planner for an electric power plant outside Willcox, Arizona, and Dave Peterson, 44, a teacher from Livermore, California. Swapping stories about brutal hikes, wrong turns and the discovery of long-lost planes in the wilderness, they make wreck chasing sound like a Hardy Boys adventure. "Everybody loves a treasure hunt," Fuller points out.

The plane we were hunting was one Fuller had long wanted to get a look at: an AT-17B (a twin-engine trainer commonly known as a Bobcat) that crashed on December 28, 1943, in the rugged terrain. Although the bodies of the two pilots were removed and the wreck partly buried by the Army Air Forces in the 1940s, the exact location of the plane was lost over time. Searching for it had been an obsession for several wreck chasers until two years ago, when Fusco found it with the aid of Herman Wicke, a rancher who originally located the wreck in 1945. Fusco feels sure he can lead us back to the site. He'd taken a GPS reading, after all. But the mountain is a maze of deep ravines, where GPS locators don't work so well. Two

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"Everybody loves a treasure hunt," says wreck enthusiast Fuller.

hours in, we are still bushwhacking our way over cactus-infested slopes.

When we finally find the AT-17B, it appears to be little more than a tangle of rusted metal. Fuller seems to sense my disappointment. "People think they're going to find these airplanes that look like you can fly them out of there," he says, "and usually they look a lot worse than this."

The only evidence of the two pilots, Lt. Robert Andrus and his student, Cadet Gayle Kral, is a white metal cross with their names on it, placed there by Fusco in 2001. In all the wrecks Fuller has visited, he's found human remains in only two, and then only small fragments of bone. People often ask him if he finds body parts, but, he insists, "it's not about that at all." Rather, it's about remembrance. America's rush to transform itself into an air power after Pearl Harbor took a greater toll in lives than most people realize. About 15,000 airmen died in training mishaps in the primitive, often-difficult-to-fly aircraft of the era, roughly about a quarter of those actually killed in combat. "It wasn't combat," says Fuller, "but it was part of the cost of keeping America free."

Fuller and his friends have been able to return dog tags and flight wings to the families of lost airmen. Perhaps more importantly, they've been able to fill in some emotional blanks for relatives. One of Fuller's most rewarding moments came when he was able to reassure the widow of Air Force Capt. Hudson T. West that she was not to blame for the death of her husband in an accident over Nevada in 1959. For decades she had wondered if her failure to make him breakfast that morning—something stressed as the duty of all good Air Force wives at the time—had left him sluggish at a critical moment. But the crash report, which Fuller found, indicated her husband was cut off by another plane during a mock dogfight and that the accident was beyond his control. "When you can help someone like that," Fuller says, "it really gives what we do a purpose."

Wreck chasing got its start in Britain, where downed planes were part of the post-World-War-II landscape. For a long time the people who sought out crashes were mainly souvenir hunters, or salvagers searching for parts. Fuller admits that when he began, he, too, "hauled down whatever I could." But gradually he began to see the wrecks as part of aviation history, as memorials to the men who lost their lives in distant corners of the nation they served.

Now, he says, he has "a hard time picking up anything." (The stuff in his house dates from years ago.) He thinks of himself as an amateur archaeologist and works through an organization he started, Aviation Archaeological Investigation and Research, to promote an approach that protects the integrity of the sites. "There's this community of crash enthusiasts starting up that goes out to the sites and contemplates what happened there," he says, "but tries not to do any damage, tries to leave them for others to study."

The more time I spend looking at the pile of scorched metal on the mountainside and listening to Fuller and the others, the more I see. Here is the throttle assembly. That's a control stick. There's a window frame, Plexiglas still hanging in shards.

Slowly the airplane comes to life. And with it comes the story of its last moments. The pilots had been trying to climb out of the canyon on the other side of the mountain when they must have clipped either rocks or trees on the ridge. That would've caused a stall. Peterson and Fuller, both pilots, find the rudder pedals jammed to one side, indicating the left wing had hit the slope first. A moment later, Peterson holds up a piece for inspection.

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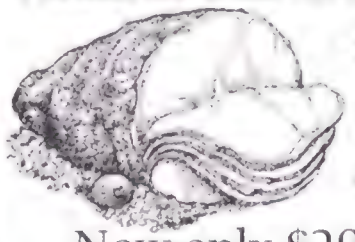

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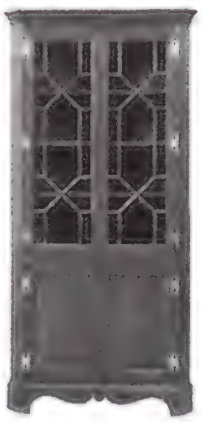

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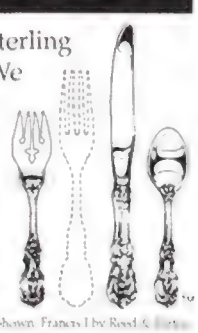

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These remains are "part of our history," says Fuller (at work in his home office).

"Oh man," Fuller says, "nice chunk of instrument panel."

Eventually they find the metal remains of the seats. And what at first seemed to be just a collection of scrap becomes the end of a very human story about two men whose names are stenciled on a cross that very few will see. As we prepare to make our way back down the mountain, Fuller turns, face down, safe from the Arizona sun, pieces of aluminum bearing squadron markings "so the next guy who discovers this will have a chance to see them."

Not everybody agrees with Fuller's approach. Many wreck chasers see no reason why they shouldn't grab an interesting piece of hardware from a site. Fuller says even the archaeological community has been slow to recognize the historical significance of crash sites, although the U.S. National Park Service has issued guidelines about respecting those on public land.

As we start to edge down the steep slope, one by one, Fuller lingers in a small clearing next to the wreck, taking it all in—the summer afternoon, the mountains, the plane—one last time. The rest of us are beat, but he seems reluctant to leave. "These sites are more than just spare parts on a mountainside," he says later. "They're part of our history. I hesitate to use the word sacred, but they're something close to that. I guess the feeling I have for them is reverence."

Tucson-based author REED KARAIM *writes frequently on history and popular culture.*

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The Pledge's Creator

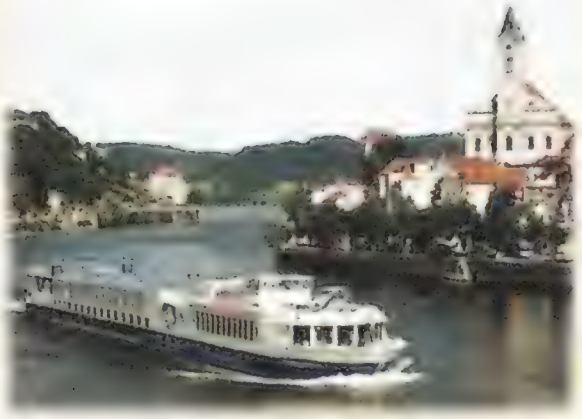
What would the minister who wrote the Pledge of Allegiance make of the legal challenge to it? ~ BY JEFFREY OWEN JONES

Written in a single sitting in 1892, the Pledge of Allegiance became a schoolroom staple by the 1940s (Tomball, Texas, first graders reciting the salute in 1945). In 1954, President Dwight Eisenhower signed a bill adding the controversial phrase "under God."

I FIRST STRUGGLED with "under God" in my fourth-grade class in Westport, Connecticut. It was the spring of 1954, and Congress had voted, after some controversy, to insert the phrase into the Pledge of Allegiance, partly as a cold war rejoinder to "godless" communism. We kept stumbling on the words—it's not easy to *un*learn something as ingrained and metrical as the Pledge of Allegiance—while we rehearsed for Flag Day, June 14, when the revision would take effect.

Now, nearly five decades later, "under God" is at the center of a legal wrangle that has stirred passions and landed at the door of the U.S. Supreme Court. The case follows a U.S. appeals court ruling in June 2002 that "under God" turns the pledge into an unconstitutional government endorsement of religion when recited in public schools. Outraged by the ruling, Washington, D.C. lawmakers of both parties recited the pledge on the Capitol steps.

Amid the furor, the judge who wrote



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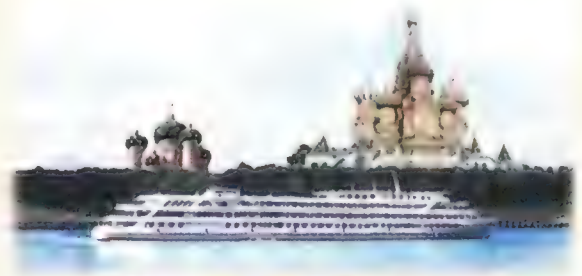

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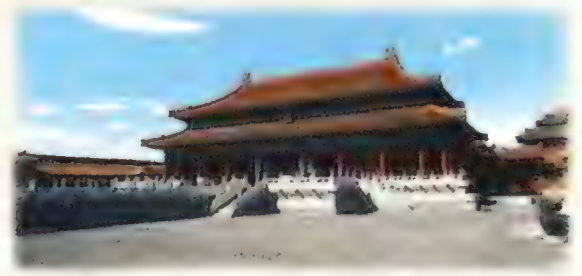

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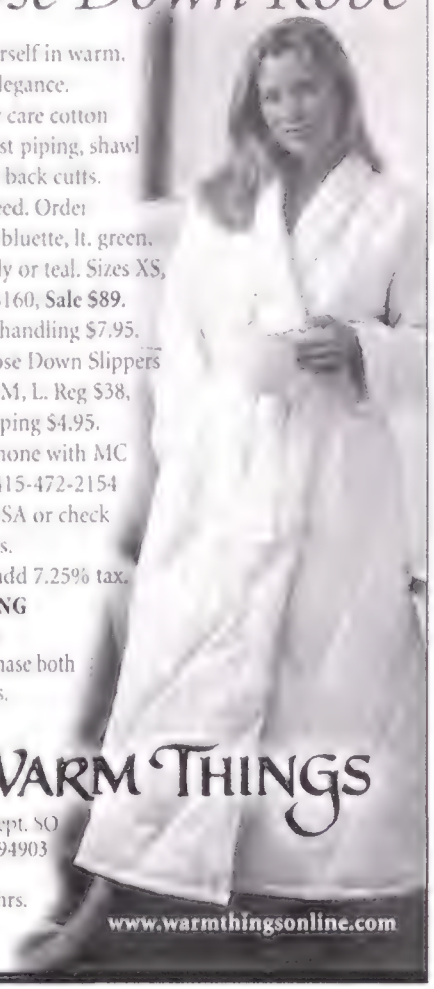

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the ruling by the Ninth Circuit Court, based in San Francisco, stayed it from being put into effect. In April, after the Ninth Circuit declined to review its decision, the federal government petitioned the U.S. Supreme Court to overturn it. (The high court had not yet decided whether to hear the case at the time this issue went to press in early October.) At the core of the issue, scholars say, is a debate over the separation of church and state.

I wonder what the man who composed the original pledge 111 years ago would make of the hubbub.

Francis Bellamy was a Baptist minister's son from upstate New York. Educated in public schools, he distinguished himself in oratory at the University of Rochester before following his father to the pulpit, preaching at churches in New York and Boston. But he was restive in the ministry and, in 1891, accepted a job from one of his Boston congregants, Daniel S. Ford, principal owner and editor of the *Youth's Companion*, a family magazine with half a million subscribers.

Assigned to the magazine's promotions department, the 37-year-old Bellamy set to work arranging a patriotic program for schools around the country to coincide with opening ceremonies for the Columbian Exposition in October 1892, the 400th anniversary of Christopher Columbus' arrival in the New World. Bellamy successfully lobbied Congress for a resolution endorsing the school ceremony, and he helped convince President Benjamin Harrison to issue a proclamation declaring a Columbus Day holiday.

A key element of the commemorative program was to be a new salute to the flag for schoolchildren to recite in unison. But as the deadline for writing the salute approached, it remained undone. "You write it," Bellamy recalled his boss saying. "You have a knack at words." In Bellamy's later accounts of the sultry August evening he composed the pledge, he said that he believed all along it should invoke allegiance. The idea was in part a response to the Civil War, a crisis of loyalty still fresh in the

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national memory. As Bellamy sat down at his desk, the opening words—"I pledge allegiance to my flag"—tumbled onto paper. Then, after two hours of "arduous mental labor," as he described it, he produced a succinct and rhythmic tribute very close to the one we know today: *I pledge allegiance to my flag and the Republic for which it stands—one Nation indivisible—with liberty and justice for all.* (Bellamy later added the "to" before "the Republic" for better cadence.)

Millions of schoolchildren nationwide took part in the 1892 Columbus Day ceremony, according to the *Youth's Companion*. Bellamy said he heard the pledge for the first time that day, October 21, when "4,000 high school boys in Boston roared it out together."

Bellamy (c. 1875): a "knack at words."

But no sooner had the pledge taken root in schools than the fiddling with it began. In 1923, a National Flag Conference, presided over by the American Legion and the Daughters of the American Revolution, ordained that "my flag" should be changed to "the flag of the United States," lest immigrant children be unclear just which flag they were saluting. The following year, the Flag Conference refined the phrase further, adding "of America."

In 1942, the pledge's 50th anniversary, Congress adopted it as part of a national flag code. By then, the salute had already acquired a powerful insti-

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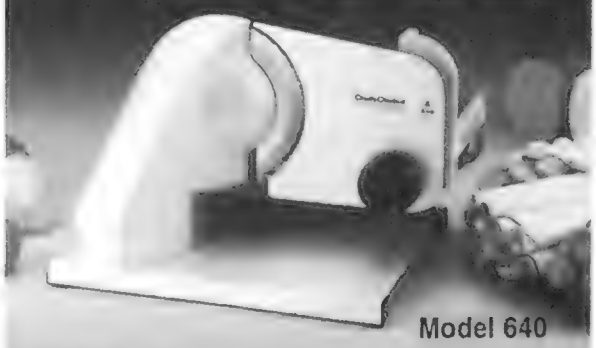

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As Bellamy sat at his desk, the words—"I pledge allegiance to my flag"—tumbled onto paper.

tutional role, with some state legislatures obligating public school students to recite it each school day. But individuals and groups challenged the laws. Notably, Jehovah's Witnesses maintained that reciting the pledge violated their prohibition against venerating a graven image. In 1943, the Supreme Court ruled in the Witnesses' favor, undergirding the free-speech principle that no schoolchild should be compelled to recite the pledge.

A decade later, following a lobbying campaign by the Knights of Columbus—a Catholic fraternal organization—and others, Congress approved the addition of the words "under God" within the phrase "one nation indivisible." On June 14, 1954, President Dwight Eisenhower signed the bill into law.

The bill's sponsors, anticipating that the reference to God would be challenged as a breach of the Constitutionally mandated separation of church and state, had argued that the new language wasn't really religious. "A distinction must be made between the existence of a religion as an institution and a belief in the sovereignty of God," they wrote. "The phrase 'under God' recognizes only the guidance of God in our national affairs." The disclaimer did not deter a succession of litigants in several state courts from contesting the new wording over the years, but complainants never got very far—until last year's ruling by the Ninth Circuit.

The case originated when Michael Newdow, an atheist, claimed that his daughter (a minor whose name has not been released) was harmed by reciting the pledge at her public school in Elk Grove, California. If she refused to join in because of the "under God" phrase, the suit argued, she was liable to be

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branded an outsider and thereby harmed. The appellate court agreed. Complicating the picture, the girl's mother, who has custody of the child, has said she does not oppose her daughter's reciting the pledge; the youngster does so every school day along with her classmates, according to the superintendent of the school district where the child is enrolled.

Proponents of the idea that the pledge's mention of God reflects historical tradition and not religious doctrine include Supreme Court justices past and present. "They see that kind of language—'under God' and 'in God we trust'—with no special religious significance," says political scientist Gary Jacobsohn, who teaches Constitutional law at Williams College.

Atheists are not the only ones to take issue with that line of thought. Advocates of religious tolerance point out that the reference to a single deity might not sit well with followers of some established religions. After all, Buddhists don't conceive of God as a single discrete entity, Zoroastrians believe in two deities and Hindus believe in many. Both the Ninth Circuit ruling and a number of Supreme Court decisions acknowledge this. But Jacobsohn predicts that a majority of the justices will hold that government may support religion in general as long as public policy does not pursue an obviously sectarian, specific religious purpose.

Bellamy, who went on to become an advertising executive, wrote extensively about the pledge in later years. I haven't found any evidence in the historical record—including Bellamy's papers at the University of Rochester—to indicate whether he ever considered adding a divine reference to the pledge. So we can't know where he would stand in today's dispute. But it's ironic that the debate centers on a reference to God that an ordained minister left out. And we can be sure that Bellamy, if he was like most writers, would have balked at anyone tinkering with his prose. ○

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Veiled Threat

In post-revolutionary Iran, reading fiction became a subversive act – REVIEWED BY FERGUS M. BORDEWICH

In Tehran, literature professor Azar Nafisi (back row, second from left, with students in 1992) had to meet secretly to discuss banned books.

READING LOLITA IN TEHRAN

AZAR NAFISI

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THE TEHRAN where Azar Nafisi grew up during the 1960s was a dynamic and freewheeling place, thanks to Iran's oil wealth and the secular and pro-Western, although authoritarian, rule of the last shah. I knew the city only as an outsider, when I lived there as a journalist in the early 1970s.

When I next saw Tehran, in 1992, it was a grim time in a grim city, more than a decade after the Islamic Revolution had replaced the shah with a regime that was the most reactionary theocracy on earth. (Unfortunately, there have been several more recent contenders for the title.)

Having destroyed all serious opposition, the revolution had focused its repression on the most vulnerable part of society: women. The legal age of marriage had been lowered from 18 to 9; stoning to death had become the appropriate punishment for adultery and prostitution. Draconian legislation required that women enshroud themselves in chadors, and they were forbidden from wearing bright colors, or showing the smallest patch of skin. Patrols roved the streets looking for offenders and, when they found them, carted the women off to jail.

In *Reading Lolita in Tehran*, Nafisi captures the struggle of Iranian women for mental and moral survival in this ghastly wasteland. For the small circle of selected female students with whom, from 1995 to 1997, she met each Thursday in her home, where she lived with her architect husband and two children, literature—the works of Nabokov and Fitzgerald, Henry James and Jane Austen—formed a kind of secret garden into which they escaped beyond the

mullahs' control. In fiction, the students were free to meditate upon their individuality and their womanhood.

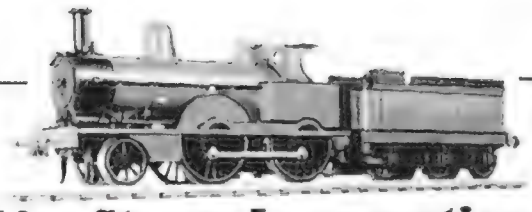
"That room, for all of us, became a place of transgression," writes Nafisi, who was trained in the United States and returned to Iran to teach in the revolution's early days. "What a wonderland it was! Sitting around the large coffee table covered with bouquets of flowers, we moved in and out of the novels we read."

Nafisi had been fired from her teaching position at the University of Tehran for refusing to wear a veil. She later built a career as a writer and part-time lecturer at a small local college. The students who met at her home varied widely in their personalities and backgrounds. Two had been imprisoned; most had known fellow students, family or friends who had been tortured, murdered or gang-raped by Islamist thugs. All of them were afraid. "Almost every one of us had had at least one nightmare in some form or another in which we either had forgotten to wear our veil or had not worn it, and always in these dreams the dreamer was running, running away," Nafisi writes.

Her approach was to formulate certain questions for her students, focusing on how great works of the imagination could help ease their anguish. Nafisi constructs her story around the group's exploration of such books, including *Lolita*, *The Great Gatsby* and *Pride and Prejudice*. As she conducts this inspired exegesis, Nafisi (who returned to the United States in 1997 and now teaches at Johns Hopkins University's School of Advanced International Studies in Washington, D.C.) reveals the students' life histories, as well as her own, ultimately chronicling the drama of repression and survival in Iran over the past 25 years.

But this is not a book only about Iran and the power of fanaticism to ruin the lives of decent people. Ultimately, Nafisi's theme is the redemptive power of the human imagination. ○

Reviewer FERGUS M. BORDEWICH'S *most recent book is* My Mother's Ghost.



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Hooked on Aging

Our writer tries to just say no to getting older

BY RICHARD LIEBMANN-SMITH

IT ALL STARTED when I was a kid. Like most kids, I just couldn't wait to get older. I thought it was "cool" to "grow up." I can still remember my 10th birthday. Double digits! The big one-oh! My dad gave me a hundred dimes and a new bicycle. My mom made me a devil's-food cake with red candles. I was hooked.

And, of course, like so many age addicts, I was unable (or unwilling) to admit I had a problem. I kept telling myself I could handle it. But every year, despite all my resolutions, despite all my best intentions, I somehow ended up "doing" another year. "All right," I remember thinking, "I'll just 'do' 20 and that'll be it, I swear." But then I hit 20 and found myself saying, "Oh, what the hell, just a couple of more years, what harm can it do?" And before I knew it, I was up to 25, then 30, then 40. I actually began to build up a tolerance: when I started, all it took was a year or two to make me feel older; but the more I "did," the more I needed. At this point, as a hardcore addict, I find I need as much as an entire decade to feel really methuselated.

I'll never forget the night I hit bottom. It was past midnight—one effect of age addiction is poor sleep—when my daughter got home from a concert.

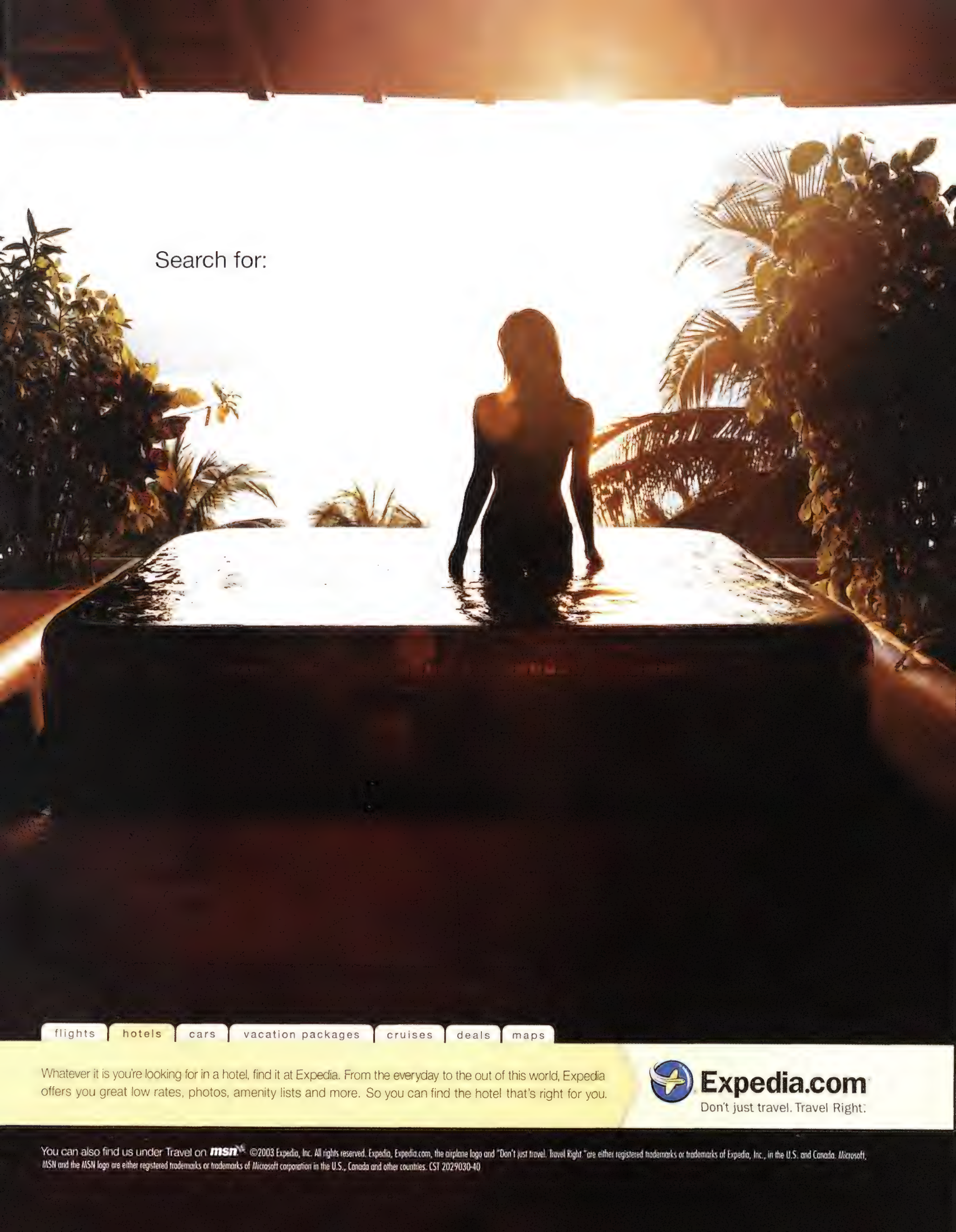
It's almost as if I'm biologically programmed to age. (My parents suffered from the same problem, and ultimately it cost them their lives.) Yet there's also a social factor. Everyone I hang out with keeps getting older (even if some are in heavy denial). We rationalize, telling ourselves, hey, it's good for wine, it's good for cheese, it's good for prime beef. Why not for us?

But in our hearts, we know: getting older is associated with everything from loss of virility, to tired blood, to bad fashion choices and worse. In fact, though you'll seldom see it listed on a death certificate, compulsive aging is one of the major causes of mortality in this country. Age addiction can also take a tremendous toll on family life. I personally know of a man who had to divorce his wife because the poor woman simply could not—or would not—give up her aging habit.

My own friends and family, bless them, tried their best to help me. One year they threw me a surprise "birthday party" that turned out to be an intervention. They showed me pictures of myself when I was young. They showed me gray hairs. They made me listen to James Taylor records. It was all as loving and scary as could be, but that very year I went out and got totally superannuated. The desire to change, as I discovered, must come from within.

I'll never forget the night I hit bottom, the moment I realized I was totally out of control. It was way past midnight—one of the effects of age addiction is that you don't sleep very well—when my teenage daughter staggered home from a Cherry Pie Reaction concert. There I was, going at it like a ripe cheddar, really geezed out, rereading Shakespeare's sonnets. And I looked up at her through the haze of my abject maturity and asked: "What's a Cherry Pie Reaction?" Well, that girl, my own flesh and blood, that little person I used to carry in my arms, shot me a look of such intense disgust and pity that I was seared to my very soul. "Oh, Dad," she sneered, "You're so . . . *old*!"

It was my wake-up call, and I swore then and there that I was going to kick the habit. I know it's not going to be easy, but with patience, determination and support I'm sure I can lick this thing. I just have to take it one day at a time. ○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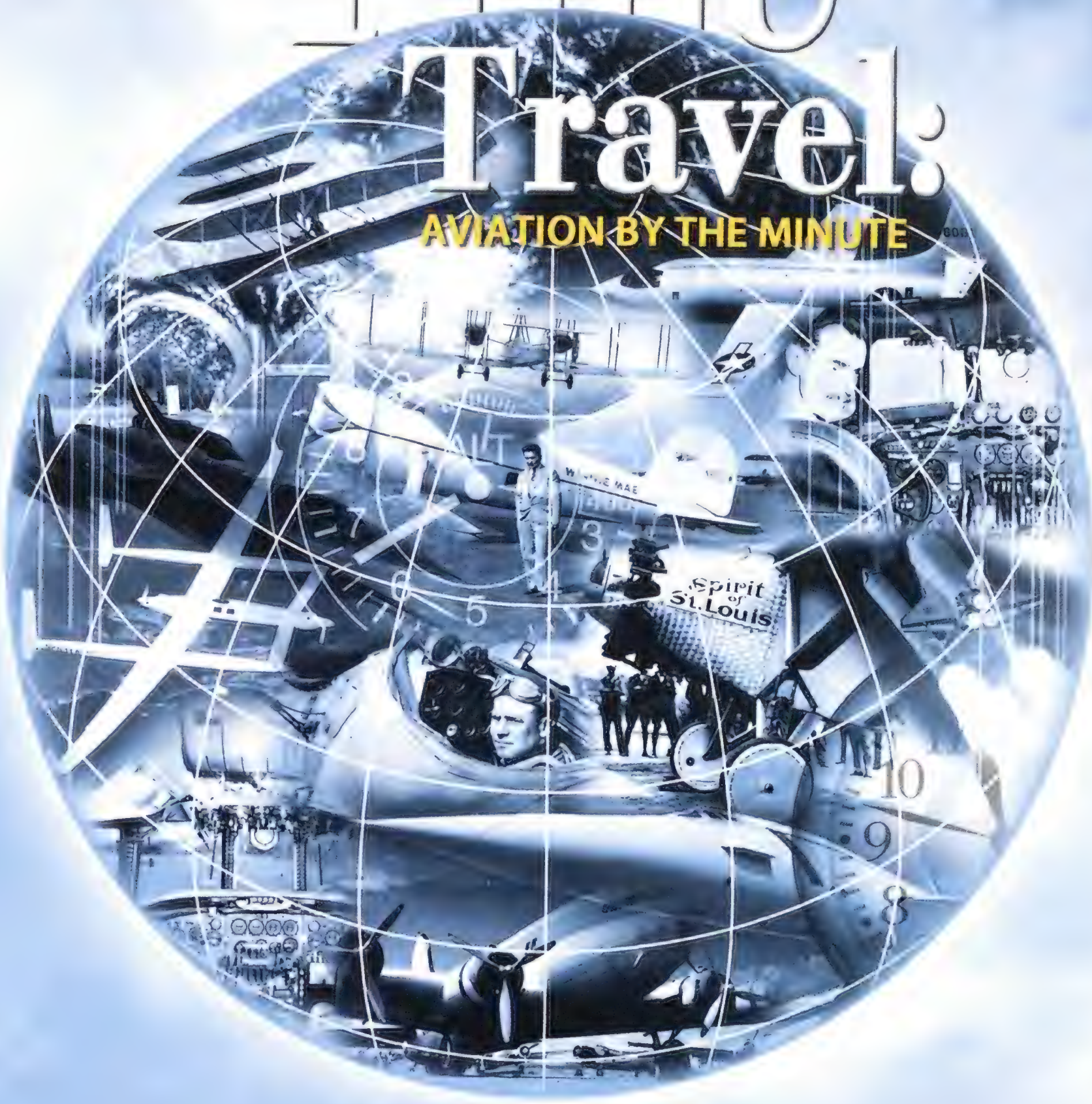

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From the very beginning of their experiments with flight, Wilbur and Orville Wright maintained meticulous records. For the historic first powered flight on December 17, 1903, Orville is recorded to have flown 120 feet in 12 seconds.

The Wright's 1905 Flyer, considered their first truly successful airplane, would remain airborne for 39 minutes, and 23.8 seconds.

Wright Brothers 1905 Flyer – see the original 1903 Flyer at the National Air and Space Museum (NASM).

That same year, Hans Wildorf and his brother-in-law, William Davis, founded Wildorf & Davis and began building precision timepieces. Their timepieces would later be used by pilots in World War I. Their company would later be named "Rolex."

Doolittle's Instrumental Breakthrough

In the early days of aviation, it was extremely risky to fly in anything but the clearest weather. Jimmy Doolittle, however, wanted to fly in all conditions: cloudy, rainy, foggy — even at night. To achieve this, he began testing navigational instruments: a highly accurate altimeter; a directional gyro to replace the compass, which lagged in turns; and an artificial horizon. These were added to an aural warning broadcast — an audible radio signal indicating the end of a runway — that was placed at the end of New York's Mitchel Field.

James H. "Jimmy" Doolittle in the cockpit of his Consolidated NY-2 during his blind flight experiments.

The Boeing Company

Douglas DC-3 – check out one of the first commercial aircraft at NASM.

On September 24, 1929, Doolittle climbed into the rear cockpit of a Consolidated NY-2 biplane and sealed himself beneath a canvas hood to simulate darkness and fog. Using instruments alone he took off and flew a 15-mile loop before picking up the radio beacon and descending to the runway in a perfect landing. It was the first demonstration of blind flight — takeoff, cruising and landing by reference to instruments alone. Almost immediately, airliners of the day, including the DC-3, adopted the same techniques, adding lightweight chronometers to meticulously time approaches, legs, climbs and descents.

Beating the Clock to Set New Records

In 1927, Charles Lindbergh flew nonstop from New York to Paris in 33 hours and 30 minutes, spurring massive public interest in aviation and an intense race among pilots to set new records. In 1931 Wiley Post circled the globe in his Lockheed

Wiley Post in front of his Lockheed 5B Vega "Winnie Mae", which he used for the first round-the-globe flight.

The jet age introduced a new phenomenon — jet lag. While inconvenient for passengers, it could be a significant danger to pilots. When extensive research by Pan Am determined that pilots be kept on "home" time when away from base, Rolex developed a watch that would allow pilots to read the time in any two time zones.

RYAN NYP "Spirit of St. Louis", flown by Charles Lindbergh on the first solo transatlantic flight – on display at NASM.

Vega "Winnie Mae," departing from New York's Roosevelt Field — the same departure point Lindbergh had used four years earlier — and completing the journey in 8 days, 15 hours and 51 minutes. The following year, Amelia Earhart captured the women's speed record for transcontinental flight, blasting coast-to-coast in her Lockheed Vega in 19 hours and 5 minutes. She later flew that same Vega across the Atlantic in 14 hours and 54 minutes, beating Alcock and Brown's 1919 record of 16 hours and 12 minutes. Howard Hughes cracked the men's transcontinental speed record in 1937, flying his custom-built H-1 from Los Angeles to Newark, New Jersey, in 7 hours, 28 minutes, 25 seconds.

Cockpit of Amelia Earhart's Lockheed 5B Vega, which she flew solo across the transatlantic just five years after Lindbergh – on display at NASM.

In an age when worldwide navigational aids were nonexistent, these record-breaking pilots flew the distance by referring to landmarks on the ground and by keeping track of elapsed time.

Aviation in Wartime

Though record-setting fell by the wayside during World War II, aviation remained at the forefront. Tens of thousands of Americans received primary flight training in the Boeing Stearman. Fighter pilots trained in North American SNJs (Air Force T-6 Texans) before battling Focke-Wulf FW 190s with their P-51 Mustangs, P-40 Warhawks and P-38 Lightnings. Bomber crews learned in Beech AT-11s before flying against German and Japanese targets with their B-17 Flying Fortresses, North American B-25 Mitchells and Martin B-26 Marauders, like the oft-hit "Flak Bait." In the Pacific, pilots turned the tide flying F6F Hellcats against Betty bombers.

Success depended on precision. Before every mission, commanders

John Alcock and Arthur Witten Brown's Vickers Vimy at the start of their record-setting 1919 transatlantic flight.

Howard Hughes in the cockpit of his Lockheed Model 14 after his around-the- globe flight in 1938.

briefed pilots and navigators on their targets, and at the end of the briefing, all carefully synchronized their watches to ensure precision. En route, navigators relied on the E6B, an analog calculator. The E6B could crunch a wide variety of vital numbers, including the gallons of fuel an aircraft would burn over a given distance, how far an airplane would fly at certain speeds, and the exact time it would take to fly a certain distance at a certain speed. Instructors still use the E6B to train today's pilots.

Breaking Down the Sound Barrier

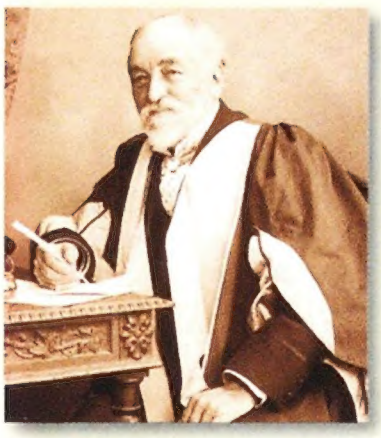
After World War II ended, test pilots at Muroc Army Airfield in California continued to push the envelope of aviation. Companies built faster and faster jet fighters, but nothing could fly faster than the speed of sound. Nothing, that is, until the Bell X-1.

On October 14, 1947, Chuck Yeager crawled into the X-1's cockpit from the belly of a B-29 mother ship and dropped into the sky. He hit the throttle and edged the rocketplane

The result — the GMT-Master — assured Rolex's place as the leading watch for pilots, adventurers, explorers and anyone else who relies on precision instruments that can perform in extreme realms. It remains the ideal timepiece for individuals — including Chuck Yeager and others who have pushed the limits of flight.

Flying: It's about Time

Flying an airplane – indeed, aviation's entire history – relies on precision timekeeping. Interestingly, however, aviation and time made their first connection through trains.



Samuel Langley, former Secretary of the Smithsonian Institution and early aviation pioneer.

In the 1800s, Samuel Langley, future Secretary of the Smithsonian Institution, supplied accurate time to railroads using astronomical observations from Pennsylvania's Allegheny Observatory, where he served as director. Subscribing railroads received exact time twice a day, allowing conductors to maintain schedules, provide time to passengers, and adhere to meticulous safety procedures. Soon thereafter, Langley became an aviation pioneer. In 1896, he built the Aerodrome No. 5, which he launched from a floating catapult in the Potomac River and into history as the first heavier-than-air, powered aircraft to achieve sustained flight.

In just 73 years, flying leapt from that perch in the Potomac to a landing on the Moon and a quest to reach beyond the stars themselves. In that time, the Smithsonian Institution has become home to thousands of aviation artifacts, many on display at the National Air and Space Museum. Reaffirming the public's continued fascination with flight, the NASM has become the world's most visited museum.

Langley's Aerodrome No. 5, in flight just after launch in 1896.

But as the boundaries of aviation expanded, so did the Smithsonian's collection, and it soon outgrew existing facilities. Recent acquisitions found themselves without exhibition space, while still others gathered dust in storage facilities.

Until now.

In December 2003, the National Air and Space Museum will open the Steven F. Udvar-Hazy Center, a new facility to restore and display its ever-growing collection of artifacts that represent the continuing aviation timeline. Finally, the public will be able to view such treasures as the space shuttle *Enterprise*, an SR-71 Blackbird and a Concorde, among thousands of other aviation artifacts.

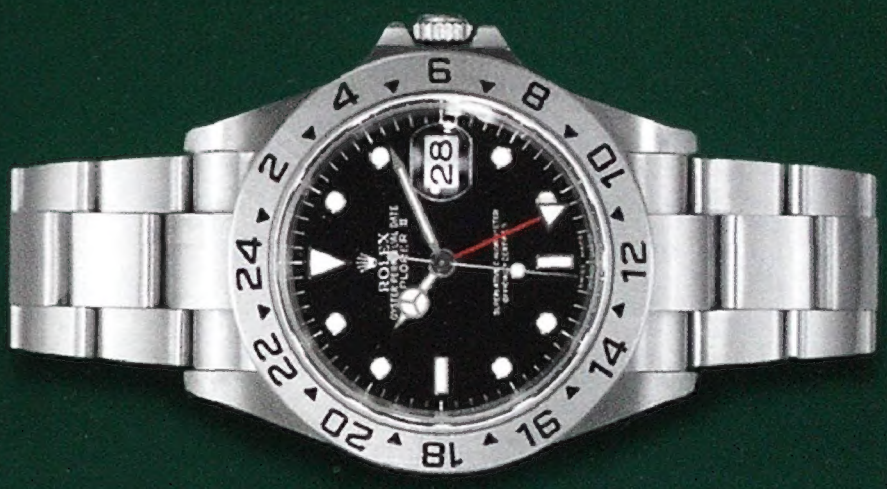
Don't you think it's about time?

Rolex, long a trusted partner to pilots, developed and donated clocks especially for the Steven F. Udvar-Hazy Center as a symbol of the importance of precision timekeeping to the history and advance of flight.

HISTORY IS NOT ALWAYS WRITTEN QUIETLY.
SOMETIMES IT REQUIRES

A SONIC BOOM.

No person has pushed the limits of man and technology like Chuck Yeager. The year was 1947. Nobody knew if a fixed-wing airplane could break the speed of sound. More curiously, whether a human could survive the tremendous force of that kind of speed. Yeager was already a legend among WWII fighter pilots when he took off in the X-1 that day. Not only did he reach Mach 1 and create the first man-made sonic boom, he did it again fifty years later in an F-15 fighter. His résumé of military and civilian accomplishments is comprehensive enough to consume chapters in aviation history books. If one person defines what it is to be a man among men, he is Chuck Yeager.



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